

PROPERTY OF
MINNESOTA DEPARTMENT
OF EDUCATION

A RESOURCE GUIDE FOR TEACHERS
of
EDUCABLE MENTALLY RETARDED CHILDREN
in
MINNESOTA PUBLIC SCHOOLS

Elementary and Secondary Schools

STATE OF MINNESOTA

DEPARTMENT OF EDUCATION

St. Paul

1966

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Part I

INTRODUCTION

Purpose of the Guide

Minnesota public schools have made provisions for the education of mentally retarded students for over a half century. However, the program has gained proportion and prominence only since the passage of the "mandatory" special education law in 1957. Today there are more than three times as many classes for these pupils as were in existence in the 1956-57 school year. This increase can be attributed not only to the 1957 law but also to the growing awareness by community leaders of the need for furnishing appropriate services for handicapped children.

Along with this growth, there has been an increasing demand on the part of those who are responsible for the education of mentally retarded children for assistance in meeting the needs of these pupils. Special teachers, in particular, have expressed a desire for general guidelines which will be helpful to them in developing and carrying out an instructional program for retarded students. This guide has been developed in an attempt to meet this need. In addition, it is hoped that the guide will be of some assistance to local school administrators and that it will give direction and a sense of unity to the statewide educational program for mentally retarded pupils.

As the name of the guide implies, it is not a detailed, comprehensive curriculum, but rather, a resource guide which provides a general frame of reference within which all special teachers can operate. The first two sections of the guide are concerned with the philosophical, administrative, and organizational aspects of a special education program for mentally retarded children. The final section, Part III, includes guidelines and points of view relating to the actual instructional program and lists curriculum guides and basic resource materials which will be helpful to teachers in developing and carrying out the program.

Because the Minnesota resource guide provides only a general framework and is intended only as a resource, teachers are encouraged to supplement it with other state and local curriculum guides and to use it as a point of departure in developing their own local curriculum.

Who Are the Educable Retarded?

A Definition of Mental Retardation

According to the American Association on Mental Deficiency, "Mental retardation refers to subaverage general intellectual functioning which originates during the developmental period and is associated with impairment in adaptive behavior."¹ This impairment in adaptive behavior can be reflected in the rate of maturation, the learning processes, and/or social adjustment. This guide is intended for those who are working with children with mild impairment and whose particular difficulty is reflected in their inability to profit fully from instruction in the regular classroom. These are the children who, by Minnesota standards,² are considered educable.

Educable Retarded Pupils are Like all Children

A striking fact about educable retarded children is that they are basically very similar to other children. In most respects they are more like other children than they are different:

1. Generally they do not have physical characteristics which set them apart from other children.
2. They are capable of engaging in the same physical activities that other children enjoy.
3. They do not exhibit behavior patterns which deviate noticeably from their peers.
4. Educationally they learn in much the same way that other children do. They begin school at the same age other children do and are able to profit from education as it is presented in the public school frame of reference.

Heber, Rick. *A Manual on Terminology and Classification in Mental Retardation*, Mono. Suppl. to Amer. J. Ment. Def., V, Second Ed., January, 1961 pp. 3-4
Directives Relating to Special Education for Educable Mentally Retarded Children, Code XVI-B-32, (Revised 1963), Minnesota State Department of Education

5. With special education and training, the majority of these children will be able, at maturity, to maintain themselves economically and socially in open society.

Some Differences Common to Educable Retarded Pupils

There are surprisingly few differences which are common to all retarded students and which single out this group of pupils from other children in school. In fact, only two such differences exist, both of which are interrelated:

1. Intellectually they function at a slower rate of learning than most children in school. Their scores on individual intelligence tests will usually fall between 50 and 80 I.Q. and they generally function at from one-half to three-fourths the rate of children with normal intelligence.
2. Academically they are markedly below their chronological grade level. They not only score below grade level on standardized and teacher-made achievement tests but also function below most of their peers in daily classroom work. For the majority of these students, maximum achievement level in academic work will be third to fifth or sixth grade.

There are, however, many sub-characteristics or by-products of these two differences; for example, difficulty in handling symbols and in engaging in abstract thinking, reduced ability to profit from incidental learning and difficulty in making generalizations and inferences.

Other Differences

The other differences that are noted in a group of educable retarded pupils are those which can be found in any group of children but seem to occur more frequently among the retarded. These are characteristics which apply to the group or category of educable retarded pupils but not necessarily to the individual child in the special class. That is, because of individual differences among retarded students, some of the special class pupils may have many of these characteristics while others may display only a few. Also, the differences may be quite pronounced in some pupils and hardly noticeable in others. Some of the more common differences found in the retarded population are included below:

1. **PHYSICAL LIMITATIONS AND SPEECH DISORDERS.** As a group, the retarded usually have poor motor coordination and a relatively high percentage of speech defects. These factors are generally more pronounced in pupils who are at the lower end of the educable retarded range.
2. **LIMITED SOCIAL MATURITY.** Some of the retarded often have difficulty in understanding and meeting everyday situations; for example, in finding their way around the school building and in assuming personal responsibilities commensurate with their indicated abilities.
3. **POOR PERSONAL-SOCIAL ADJUSTMENT.** The inability of the retarded youngster to compete academically may adversely affect his personal-social adjustment in the school setting. It may lead to pronounced feelings of inferiority and may sharply reduce his ability to realistically assess his abilities and limitations.
4. **BEHAVIOR PROBLEMS.** When a retarded child has experienced repeated failure or rejection, he may respond, much as others do, by becoming timid and withdrawn or hostile and aggressive. This not only further impedes his educational progress but also often disrupts the classroom.
5. **SPECIAL LEARNING DISABILITIES.** Some retarded students may have a psycho-neurological disorder which alters the learning process to the extent that they are not able to receive maximum benefit from the usual teaching methods that are effective with most special class pupils.
6. **SUBSTANDARD HOME BACKGROUND.** A large proportion of retarded children come from poor socio-economic environments where they have had few experiences and where education is given a low priority.

What Is Special Education?

Philosophy

It is generally agreed upon in a society such as ours that all children have a right to equal educational opportunity. Special education is based upon the premise that equal opportunity does not mean identical

programs but rather it means that each child has the right to an education which will enable him to benefit to the maximum of his ability. This, in turn, benefits society in that its human resources will be more fully utilized.

The purpose of special education is:

1. To modify, insofar as is possible, the interfering differences in learning characteristics of the child, and/or
2. To accommodate to these differences where modification of the child in his learning situation is not feasible or appropriate within the regular educational program. If the school program is to be effective for the mentally retarded, it not only must be broad enough to capitalize on the similarities these pupils have with other children, but it must also take account of and provide for their differences.

Comparison with Regular Classes

1. *Similarities.* Special education is essentially an extension of regular education and in many respects it is similar to the regular school program. Following are some of the similarities between the two programs:
 - a. The fundamental goals and objectives are essentially the same for both regular and special education.
 - b. The basic processes involved in instruction are the same in both settings.
 - c. The curriculum of the special classes incorporates many areas covered by the curriculum of the regular classroom.
 - d. The good special teacher is probably comparable in essential characteristics and abilities to the good regular classroom teacher.
2. *Differences.* There are many aspects of the special class program which are special or different from the program in the regular classroom. These differences relate not only to the instructional methods and materials used in the special classroom but also to the amount of emphasis placed on various areas of the curriculum.

The differences are generally not categorical in the sense that they apply to or can be used only in a class for the retarded. Instead, they are differences in the sense that they are modifications and adaptations of the regular school program. For example, while attempts are made in the regular classroom to provide for individual differences, major attention is given them in the special classroom, and a considerable amount of time is devoted to individual instruction and assistance. Some of the differences between the regular and special class programs are as follows:

- a. The enrollment in the special class is usually restricted to less than half that of most regular classes. By keeping the classes small it is possible for the teacher to give considerably more attention and assistance to individual children than would be possible in the regular classroom.
- b. The special teacher may find it necessary to use varieties of instructional approaches beyond the range which can feasibly be employed in the regular classroom.
- c. While the special class curriculum touches on many areas included in the regular curriculum, these areas are not necessarily pursued in the same manner or covered in the same depth or scope. Decisions concerning inclusion or exclusion of curriculum content or choice of method to be used must be, as with the regular curriculum, based on the learning objectives established for each case. In the case of the retarded, however, goals tend to have a highly utilitarian focus since the attainment of more adequate life functioning can be a major triumph for them.
- d. Many of the formal skills in reading and arithmetic will need to be introduced at a later time in the instructional sequence of the retarded child's program. This means that more time should be spent on developing readiness for skill acquisition.

Part H

ORGANIZATION OF THE SPECIAL EDUCATION PROGRAM A BACKGROUND FOR ADMINISTRATORS AND TEACHERS

- I. Selection and Placement of Pupils
- II. Parent Consultation
- III. Special Class Organization
- IV. Description of Special Classes for Various Age Groups
- V. Integration of Pupils into Regular Classes
- VI. Administration and Supervision of the Special Education Program
- VII. The Role and Characteristics of the Special Class Teacher
- VIII. The Use of Community Resources and Services

I

SELECTION AND PLACEMENT OF PUPILS¹

A. Problems in Identifying Children

It has become increasingly apparent to school districts operating special education programs that proper identification and placement of retarded pupils is not a simple task. Although the majority of children with I.Q.'s between approximately 50 and 80 on individual intelligence tests will require special class assignment, there may be problems encountered in the placement of pupils who score at the upper and lower extremes of this range.

The greatest problems will occur in the selection of children who score in the upper borderline range of intelligence, 75 I.Q. and above. Some of these pupils are able to succeed fairly well in the regular class setting while others will require placement in a special class. For this group of children the decision for special class assignment will depend on factors and conditions in addition to tested intelligence. More than a few "borderline" children who would otherwise be able to remain in regular classes have been indiscriminately assigned to the special class solely on the basis of an I.Q. determination. Certainly this procedure is unfair to the pupils involved since their potential capacity is generally greater than that of most retarded students. Such unjust and injudicious placement may also adversely affect the social and emotional adjustment of these pupils.

On the other hand, to exclude pupils solely on the basis of higher I.Q. scores when they plainly need special class placement may be fully as costly and serious in social consequences as the opposite error. The importance of assessing and considering the "whole" child in making a determination of eligibility is clearly evident.

There may also be problems in determining the most effective placement for those who score in the lower "educable" or upper "trainable" range of intelligence; that is, 50 I.Q. plus or minus five points. Some of the pupils in this category will be placed in a class for educable children; others who are noticeably immature, multiple handicapped, or lack educability for reasons other than low I.Q. may be more appropriately served in a class for trainable children, 30 to 50 or 55 I.Q. In all cases, each child must be considered on an individual basis and other factors, in addition to his I.Q., need to be taken into account.

B. Role of Superintendent

Although someone on the school district professional staff may be delegated the responsibility of gathering all necessary diagnostic information about any particular child, the actual decision for placement is the responsibility of the superintendent of schools. The decision may be recommended to him by one of his administrators or by a placement team but the responsibility for making the final decision is his.

C. Placement Committee

Many superintendents have found it useful to appoint a committee of several faculty members to assist in the identification, placement, and individual programming of handicapped pupils. Such a committee usually consists of the professional personnel who have obtained the information on the children and other persons designated by the superintendent, such as the special class teacher, the building principal, and the counselor. Some schools have found it helpful to expand the role of the committee so that it can serve in an advisory capacity to the superintendent on policy matters relating to the actual operation of the district's total special education program for handicapped children.

D. Talking with Parents

Children who are mentally retarded will generally have a history of failure and poor performance during all of the time they are enrolled in regular classes. The time for parents to be informed of this is when the child first has difficulty in school—not when he is ready to be placed in the special class.

If the school has maintained a close, constant line of communication with the parents and has actively tried to help the child, it will not be so surprising or distressing to them when the possibility of special class placement is discussed. Many parents will favor such a program, especially when the purpose of the class is carefully interpreted to them. See Chapter II.

Much of the material in this chapter and Chapter II has been adapted from the administrative manual distributed by the Minnesota Department of Education entitled, *Directives Relating to Special Education for Educable Mentally Retarded Children*. Code XVI-B-57.

E. How Pupils are Selected for Special Classes

The decision to remove a child from his regular classroom and place him in a special education program is one which must be given very careful consideration. Those who are responsible for making this decision should use as much information as they can obtain about a particular child and should use a variety of disciplines in arriving at a decision. Following are some of the steps involved and the kinds of information used in this process:

1. Teacher Referral

The regular classroom teacher usually is the person responsible for making the original referral. It is through his observations and through working with the child that he will be able to make a judgment regarding the desirability of referring a pupil for further study.

The teacher's referral is usually concerned first of all with the child's achievement level in the classroom. "While it is not difficult for the teacher to identify those youngsters who are functioning considerably below grade level, the reasons for their lack of achievement are not always as obvious. Because of this the teacher or school will find it helpful to verify his observations through the use of a group testing program before referring a particular child for further study.

The teacher also bases his referral on his observations of the child's social standing in the classroom and behavior in daily activities. This is a particularly crucial area in deciding upon the proper placement for a child and it centers around two main points: (1) The manner in which the child accepts and reacts to his academic failure and intellectual inferiority, and (2) His relationship to the other children in the classroom and school.

2. Group Testing Program

The use of standardized group mental tests can give school personnel a general indication of the rate of learning and the potential of individual children. Generally, those pupils who score in the lower ranges of the test, usually 80 I.Q. and below, and who are failing to make normal progress in school should be referred for an individual psychological evaluation.

In addition, standardized achievement tests can provide a fairly reliable indication of the level at which a child is functioning in his academic work. Most mentally retarded children will score markedly below their chronological grade level on these tests. Although little information will be available on the very young child, the use of certain readiness tests will be helpful. In addition, teacher-made achievement tests can often serve as a useful supplement to the standardized testing program.

Comparing teacher observation and judgment with group test results serves as an initial means of checks and balances in determining the eligibility of a child for special class placement.

It should be anticipated that not all of the pupils identified by these screening techniques will be mentally retarded. All too frequently children with certain other handicaps or disabilities appear on the surface to be mentally retarded while in reality their needs are quite distinct from those of pupils with low intelligence.

Some may be of average intelligence but have a specific learning disability as in reading achievement. Others may function at a low level because of emotional disturbance or a severe hearing or visual loss rather than low mental ability. Other pupils may be slow learners whose needs can best be served in the regular classroom with an understanding teacher and adjustments in the curriculum.

For these reasons, no child can be identified as mentally retarded or be placed in a special class solely on the basis of these group screening procedures. A careful individual study of each child is necessary before an accurate determination of his abilities, disabilities, and educational needs can be made.

3. Health and Medical Record

The health record for each pupil should be examined to rule out or confirm the possibility that his difficulties in school are a result primarily of a hearing or visual impairment or to some other medical problem. If a pupil has not had his hearing and vision tested, arrangements should be made for this to be done through the school or county nurse or other resource.

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When a pupil's health record indicates a medical problem which might affect his school performance, arrangements should be made for a more extensive evaluation by an appropriate medical specialist, for example, an otologist, an ophthalmologist, or a neurologist.

4. Psychological Examination

In Minnesota each child who is being considered for special class placement must be tested by a certified psychologist. The primary purpose of the examination is to assess the child's mental ability and to secure other diagnostic information which may prove helpful in working with the child regardless of whether or not he is placed in a special class.

Through the use of an individual intelligence test such as the Stanford Binet Intelligence Scale or Wechsler Intelligence Scale for Children, the psychologist can obtain a more reliable measure of the child's rate of learning or I.Q. and his present mental age or level of functioning.

The evaluation and subsequent report may also be concerned with observations about the youngster's personality, such as his insight into his problems, the presence or absence of anxiety, and the nature of his self-concept. In addition, it may include a statement about the child's prognosis for self-sufficiency. Finally, the report will contain a recommendation regarding the need for special class placement or for other modifications in the child's school program.

Generally, children who score between 50 and 80 I.Q. on the individual psychometric examination will qualify for special class placement. However, in certain instances, pupils with I.Q.'s above 80 and below 50 may also qualify for special education services on a trial basis.² In these cases, the reported observations and judgments of the psychologist are a particularly important part of the total psychological evaluation.

5. Additional Information

It is not unusual to find that individuals involved in the diagnostic process desire further information before recommending placement of a child in a special class. For example, medical personnel may feel that a neurological examination is desirable. Also, the psychologist and/or medical doctor may feel that a psychiatric examination is necessary. In addition, information regarding examination is necessary. In addition, information regarding environmental influences is generally considered to be helpful. This would typically require the services of a school social worker and/or the local county welfare department.

F. Final Determination of Eligibility

In making a final determination of eligibility, all of the members of the school staff who know a particular child should be in general agreement that the special class will be more suitable for him than the regular classroom. The judgment of the faculty in this regard must involve consideration of more complex factors than the mere fact that the student has a "hard time" in the regular curriculum.

The decision to place a child in a class for the mentally retarded will, in all probability, affect his whole life and thus should be made with extreme care. This decision should be predicated on the belief that such placement will:

1. Have the most salutary social and psychological effect on the pupil involved.
2. Provide a specific and appropriate educational accommodation which will outweigh the effects of segregation and labeling.
3. Promote the general social welfare of the individual by enhancing the probabilities of his effective performance as an adult.

²Standards and procedures relating to placement of pupils in special classes on a trial basis are contained in the "Educable Manual."

II

PARENT CONSULTATION

Once it has been determined that a pupil is eligible for placement in a class for the mentally retarded, the parents and child are entitled to an explanation of this decision. Generally, no pupil should be assigned to the special class without the consent of the parents. However, each district must decide upon the best policy in this regard as it relates to each set of parents, the effect on the child, and the attitude in the community.

A. Who Should Consult with the Parents

Some districts prefer to have the psychologist interpret the need for special class placement at the time he has evaluated the child. However, this can have repercussions if the psychologist is not a member of the regular school staff and does not know the attitude of the community or the parents involved.

Often the superintendent, principal, or counselor is the one who meets with the parents. Whoever has this responsibility must carefully consider the parents' feelings and should endeavor to help them to see the need for and value of the special education program.

B. What Should be Said to Parents

First, the child's need for special class placement should be carefully interpreted to his parents. In talking with parents it is generally unwise to use the label "mentally retarded." This is especially true for children who test in the borderline range of intelligence. In such cases it is often best to describe the child's difficulty in terms of what he can or cannot do in the academic or total school situation. That is, the condition can be described without labeling it.

The emphasis should be on the advantage of special class placement and this should be pointed out to parents in a simple, direct manner—the advantages of having the child in a smaller class situation, the need for and benefit of individual instruction in the tool subjects and the mental health and happiness of the child. If the value of special class placement is carefully interpreted to parents, they can more readily understand and accept the child's need for special educational services.

C. What if Parents Will Not Consent to Having Their Child Transferred?

First, there will be surprisingly few parents who will not consent. If a parent does refuse, the school should put forth every effort to gain his cooperation and understanding. It may be helpful to have the parents visit the special class and talk with the teacher. Often they will be willing after several months to permit their child to be admitted.

In general, the essence of reaching an understanding with the parents is the actual emotional acceptance on their part of the child's condition and needs. The evidence should be cumulative and as objective as possible. When a child is plainly in need of a special education program and his mental health is being impaired by continued enrollment in the regular room, it may be necessary, for his future success and adjustment, to transfer him to the special class even if the parents are adamantly opposed.

Note: The school board has complete jurisdiction legally for the placement and grading of pupils who are residents of the district. (Minnesota Laws 1959, Section 123.35, Subdivision 2)

D. How the School Can Help Parents Accept the Program

The special class will be more acceptable to parents if the school makes every effort to keep it a part of and not apart from the total school program. As with any classroom, it should be as attractive as possible. Whenever possible the special teacher should be given an opportunity to work with other children. In this way the teacher will be accepted and regarded by students and faculty as a regular member of the school staff and not as "the special teacher."

The special class should not be identified in a negative or disparaging way, nor should the possibility of placement there be used as a threat for children who are behavior problems in the regular class setting. The special class pupils should be assigned to buildings with other children of an approximate chronological age and they should be routinely included in the regular recess, assemblies, lunch period, and other school activities. At the secondary level they also should be permitted to enroll in certain regular classes.

Teachers need to be aware that parents may be sensitive to the point of whether the special class looks obviously different from the regular class and that their ideas of education have been conditioned by their experiences with the regular program. The special teacher must have sound reasons for doing things differently or for presenting a different appearance in the content and arrangements of the special classroom, and he must expect to have to interpret and justify his reasons for differences to both parents and regular educators.

Appropriate placement is a school responsibility and can best be effected when every effort is made to secure the parents' cooperation and understanding.

III

SPECIAL CLASS ORGANIZATION

As with any other school program, careful consideration must be given to the way in which the classes for the mentally retarded are organized within the structure of the school. Organization of a special class for educable mentally retarded children will possibly vary from school to school according to the nature of the children, the facilities available, the characteristics of the community in which the program is located and the philosophy of education under which the school functions.

Regardless of the specific type of special class that is established, it is essential that it be considered an integral part of the total school program. Administratively, the program should be handled through the existing school structure with the lines of communication already defined and the responsibilities of all staff members delineated. The failure or the success of any given special class may often hinge on how well the school is able to recognize that the special class is not a separate entity, but rather that it is an extension of the regular school curriculum offerings.

The more common or standard patterns of special class organization—segregated, integrated, resource and supplemental instruction programs—are discussed briefly in the following paragraphs:

A. Segregated or Self-Contained Programs

The self-contained special class is organized primarily in the elementary school setting. In this program the students are in the special room all day and are not integrated into regular classes. They are, however, routinely scheduled for lunch and recess periods with the rest of the student body and take part in assemblies and other all-school functions.

B. Integrated Programs

In this type of organization, pupils spend approximately one-half of the school day in the special class for academic work and are integrated with other students in regular nonacademic classes during the remainder of the day. This type of program is the one most frequently organized at the secondary level but there are an increasing number of such classes being established in elementary schools. At the elementary level this plan is most effectively used for upper "borderline" children and pupils with greater social and academic potential.

C. Resource Programs

Under this arrangement, the regular classroom teacher assumes major responsibility for the education of the child, with the special class teacher serving primarily in the role of a resource person, helping the child and his teacher to meet specific problems that might arise as a part of his school program.

This means that the child is removed from the regular classroom only when special individual help may be needed. The special class teacher, in consultation with the regular classroom teacher and the school administration, schedules the children individually for work in those areas where the child needs help. The special teacher's responsibility here is mainly limited to the child's academic progress. The social and mental health aspects remain primarily the responsibility of the regular classroom teacher.

In this type of program the special class teacher spends a limited amount of time with each youngster and probably does not become aware of his assets and liabilities as he would in a self-contained classroom. While the segregated program is generally considered to be most appropriate for children within the low educable range, one would be much more likely to find the resource program applied to youngsters who fall at the upper extremes of the educable retarded group. Only a few of these programs presently exist in Minnesota at the elementary level. However, this approach has considerable potential at the junior and senior high school level.

D. Supplemental Instruction Programs

Supplemental instruction is defined as individual tutoring of a handicapped child in conjunction with his regular class attendance. That is, the pupil attends most of his regular classes but receives individual instruction from a supplemental teacher in another room for approximately one hour per day.

The basic purpose of the supplemental program is to provide tutorial assistance or a supportive program in the academics in order to make it possible for certain handicapped children to achieve some degree of success in the regular school program.

The supplemental program is usually most effective with upper educable retarded pupils who are relatively well accepted in the regular school setting. In fact, the supplemental program may be more beneficial for certain individual children than placement in a full time special class.

Supplemental instruction is also provided as a temporary measure for other more retarded pupils at both the elementary and secondary levels where, for various reasons, establishment of a full time special class is not immediately possible. However, for these pupils, supplemental instruction must be seen as a stopgap arrangement to assist them in getting along in school until a full time program can be provided

Supplemental instruction has also been used for small groups of retarded children to provide a modified special class experience for them. Under this arrangement from two to five children of approximately the same age are brought together for two or three hours of small group instruction.

IV

DESCRIPTION OF SPECIAL CLASSES FOR VARIOUS AGE GROUPS

A. Special Classes at the Primary Level

Ideally, each school should have facilities at the primary level so that children who are identified as mentally retarded early in their school career can receive the services that they need. This is particularly important as many negative attitudes toward school may be formed during these initial years. Also, it is felt that the attitudes which develop because of repeated failure may be a deterrent to adequate adjustment in later life.

The evidence is becoming more and more clear that programs for young mentally retarded children can be successful and can aid in the child's making a more adequate adjustment later on in his school career. First, identification procedures are now sufficiently well defined to insure careful selection of special class candidates. Also, providing special instruction for children at the primary level is preferable to allowing them to experience several years of failure in the regular grades before placing them in a special class.

The program at the primary level should concentrate on social experiences, readiness work, and the introduction of basic skills. It is basically a program of readiness which attempts to prepare the child for experiences that he will have in the intermediate, junior high and senior high school programs.

B. Special Classes at the Intermediate Level

Generally, the first special class to be organized in a school district is the one at the intermediate or upper elementary level. It is at this age, when pupils are expected to have mastered the basic skills to the extent that they can apply them in other learning situations, that the retarded child becomes a more severe instruction problem in the school, and it is at this point that his need for special instruction and services becomes most apparent to school personnel.

Although these programs are initially established for children between the ages of nine and twelve or thirteen, school districts in outstate regions often find it necessary to enroll primary age children in the program. As a result, the class becomes a broad elementary program rather than an intermediate class; and, while this is often necessary, it does place a greater burden on the teacher in his efforts to provide an appropriate education for the children enrolled in his program. The emphasis at this level should be on progress in the skills areas and on continued development of social experiences. Generally, the youngster will remain in the intermediate class until he is approximately twelve or thirteen years of age. Physical and social maturity and the capacity to deal with the complexities of the junior high school's social demands must be carefully considered in the promotion decision.

C. The Junior High School Program

As with normal children, educable mentally retarded youngsters between the ages of twelve or thirteen to fifteen or sixteen should be placed in a junior high program. The junior high special class serves as a "bridge" between the elementary school program and senior high program. Almost all junior high school special classes are organized on an integrated basis. The program at this level is concerned with the continued development of basic academic skills. Social studies activities, whenever possible, deal with practical, everyday living experiences but not to the exclusion of other more traditional social studies content areas. The study of jobs and job opportunities, as well as social and community agencies that can be helpful to this group, is sometimes included in the later stages of this level.

D. The Senior High School Program

For pupils who are too old for the junior high school special class, it is necessary that the schools provide a program which will fulfill their needs as they move into adult society. The school program at the senior high school level is essentially an extension of the junior high special class with more emphasis being placed on converting academic skills into competencies required in everyday adult life. Attention is also given to assisting pupils in making an adequate social and occupational transfer from school to work and community living. The senior high school program is able to further differentiate between these pupils in terms of their needs and abilities. Their potential as members of society now becomes easier to assess and the skills they need to develop become more obvious to those who are working with them. Within the high school educable retarded population, the students can be divided into the following three groups:

1. **DIRECTLY EMPLOYABLE GROUP.** These are students who can profit from the traditional integrated high school special education program. They generally obtain jobs on their own upon completion of high school and are able to maintain themselves in open society without additional assistance from the schools or other social agencies. The group includes some of the upper educable retarded who are academically more able and who have a relatively high degree of social competence.
2. **DIRECTLY PLACEABLE WORK-STUDY GROUP.** The pupils in this group also become self-supporting upon completion of high school, but they need the inclusion of work-school experiences as part of their high school program. The work-study program is discussed in the next section. Some of the students may also need direct assistance from vocational rehabilitation in finding suitable employment.
3. **MARGINALLY EMPLOYABLE GROUP.** This is a relatively small group of pupils who require job preparation services beyond those provided by the school. They will need assistance from vocational rehabilitation in both training and placement. Some of them will be able to make a marginal adjustment in the community but others may be capable of only partial self-support in a sheltered environment.

This group includes: (a) Some of the lower educable retarded who are markedly inferior academically and socially, and (b) Those multiple handicapped students whose employment potential is limited because of their additional disabilities.

E. Work-School Programs

It has been recognized that school-work experiences must be provided for a large segment of the special class population if the pupils are to realize their fullest potential in adult society. Unfortunately, work-school programs, to date, have been provided only on an informal and sporadic basis and, as a result, this has been one of the weakest links in Minnesota's special education program.

In some school districts, work placements in the community have been arranged for certain pupils through the direct efforts of the secondary special class teacher. However, while this has been successful, most special teachers do not have the time or training to carry out this phase of the program successfully.

Following are two successful approaches which have been effective on a limited basis in providing work-school experiences for the retarded and which will likely continue to be used in some districts in the future. This is especially true in the case of in-school work stations.

1. **SCHOOL-REHABILITATION COOPERATIVE APPROACH.** This approach involves using the resources of the local district office of vocational rehabilitation. The rehabilitation counselor can (a) Consult with the school staff on matters relating to job readiness, employment opportunities and legal aspects of employment, (b) Help in assessing the individual student's work potential, and (c) Aid in the actual placement of the pupil in a work situation.

The effectiveness of this approach, to date, has been limited because of the shortage of rehabilitation personnel in outstate areas and because of the limited number of secondary school special education programs.

2. **IN-SCHOOL WORK STATIONS.** In-school work stations have most often been provided through assignment of selected students to the cafeteria, the janitorial staff, the central office, and the librarian. Students assigned to these stations usually work an hour or more a day and are under the dual supervision of the special class teacher and the individual job supervisor.

F. State Plan for Education and Rehabilitation of Retarded Pupils

Major attention has recently been directed toward effecting a comprehensive and coordinated work-study program which embraces Special Education, Vocational Rehabilitation, and local school districts. The program has, as its purpose, the objective of bridging the gap between the education process and the world of work.

As a result of these efforts, special Vocational Rehabilitation Service Units at the secondary level have been established in several local school districts in Minnesota. This type of arrangement has definite potentiality for implementation on an inter-district basis in rural areas in Minnesota and these programs

will likely develop throughout the state in the next few years.¹ Some features of these special work-study programs are:

1. Staffing is by persons trained in both education and rehabilitation.
2. The salary of these staff members is supported, to a large extent, by state and federal funds.
3. The unit staff has direct access to vocational rehabilitation case service and on-the-job training funds.
4. The vocational adjustment coordinator works closely with the high school special class teacher to develop appropriate in-school curriculum experiences.

¹Districts interested in establishing such a program should contact the Special Education Section.

INTEGRATION OF PUPILS INTO REGULAR CLASSES

A frequent question in any discussion of special education for the educable mentally retarded is, "Should retarded pupils be integrated into regular classes with other students or should they be segregated?" Although there are widely divergent views on the subject, this guide essentially supports the integrated approach provided that it is carried out on a rational basis.

The rational approach to integration is based on the belief that retarded pupils should be with other students whenever possible and should be separated from them for special instruction only when necessary. While integration is upheld as a general operating principle, this approach does acknowledge the fact that some retarded pupils, especially those at the lower end of the continuum and those with multiple handicaps, may not be integratable and, in fact, may be more segregated in regular classrooms than they would be in a special class.

It should be pointed out that integration of handicapped children in regular class programs is valuable only if used wisely. There can be no argument about the worth of the concept if viewed in the proper perspective. Many people talk about integration versus segregation. However, these two concepts can exist side by side and the proper application of the merits of each is essential in programming for handicapped children. The concept should be integration and segregation rather than integration versus segregation.

The following sections are concerned with the purpose and practices of integration as well as some suggestions to follow in using this approach.

A. Purpose of Integration

In recent years special classes have come more and more to be regarded as the most effective and realistic means of providing an appropriate educational accommodation for retarded children. Unfortunately, there are certain disadvantages to special class placement which, if not corrected, can sharply reduce the effectiveness of the special education program. Integration has been used successfully by many school districts as a means of overcoming these disadvantages.

The basic disadvantage to segregated special class placement is the fact that regression toward the mean or "leveling" usually begins to take place when handicapped children are restricted to a limited peer group all day for a number of years. This adversely affects the level of functioning of individual pupils in terms of their language development, vocabulary, and interests. It also has negative social implications, especially for those youngsters who, given a proper program, would eventually be able to be assimilated into society.

Pupils who are educated in a segregated, sheltered environment are often deprived of the opportunity to participate in the normal "give and take" of everyday social situations with other students. This can result in dependency in adult life, especially in the important social areas of living. On the other hand, integration can substantially offset the possibility of this happening and, in fact, can assist in preparing these retarded pupils for social and vocational independence.

Integration makes it possible for the special class pupils to be exposed to a wider range of experiences, friends, activities, and adults. It can result in less labeling and stereotyping of the students. In an integrated program the special class teacher can concentrate more on a meaningful special class curriculum rather than trying to be all things to all students. As an ancillary advantage, the regular class teachers and students benefit in many intangible ways from association with these pupils.

B. Practices of Integration

In Minnesota, as in most states, the majority of special classes at the elementary level are operated on a self-contained basis. This follows the general organizational structure of the elementary school. Contact and interaction with other students in the elementary program generally take place at lunch, recess, and at school activities such as assemblies and special events. In some schools certain special class pupils are enrolled in regular classes for such activities as physical education and music. There are exceptions to the fact that most elementary special classes are self-contained. A few school districts operate highly integrated programs at the elementary level. These classes are actually resource rooms in the sense that the pupils

are enrolled in and identified with the regular class and come to the special teacher for only a few hours per day. This approach undoubtedly is most effective with those pupils who are intellectually at the upper end of the retarded range and who are socially well adjusted. At the secondary level, integration is practiced in almost all of the special classes in the state. Where it is not practiced it is because the class is composed of low educable, upper trainable youngsters who generally are not integratable. Classes into which these youngsters are usually integrated are industrial arts, physical education, art, music, home economics, and on occasion, certain "low" sections of regular class Mathematics, social studies, or English.

Students at the secondary level generally spend a minimum of two to three hours per day with the special teacher. However, programming of individual students may result in certain modifications. Some pupils may need a larger block of time with the special teacher. There also may be isolated cases where an individual student will require only a short period of time in the special room. This points to the need for a rational approach.

Other integration takes place, as it does with the elementary level pupils, in the lunchroom, on the athletic field, and in other various all-school programs and activities. Experience has shown that the most functional program, that is, those programs which are best accepted by parents and the rest of the school and which consistently turn out a better prepared end product, are the ones in which a rational approach to integration is used.

C. Need for a Positive Attitude Toward Integration

In districts where integration is most effective, a positive, professional attitude which places sound educational philosophy over administrative or instructional expediency is present in all key staff members.

Special class students in this setting are considered the responsibility of the total faculty rather than the sole responsibility of the special class teacher. In addition, the special class is considered an integral part of the total school system—an extension of the regular curriculum offering rather than something apart or alien.

Where positive attitudes exist regarding integration, the label of "special class student" or "mentally retarded" is de-emphasized insofar as possible. The focus, instead, is on the pupil and not on his handicap. In such an environment the industrial arts teacher, for example, is willing to give the retarded pupil a chance to succeed in the shop program rather than prejudging him because he is from the special class.

Translated into its practical realities, this attitude means that the principal, for example, is willing to spend some extra time working out details of scheduling and conferring with regular class teachers on certain problem areas connected with integration. It means that regular class teachers who have these students in their classes for a portion of the school day are willing to adjust their instructional program to include these students.

This attitude also means that the special class teacher is willing to take the time and effort necessary to work with the regular class teacher in overcoming problems that might arise because of social or instructional inadequacy of a particular special class student. In addition, it means that he is willing to tolerate the frustration of trying to schedule and conduct an instructional program with his students scattered into regular class section periods at various times of the day.

In the final analysis, integration is a concept which can be implemented only through dedication and hard work on the part of administrators, regular class teachers, and special teachers. Unless these persons are willing to apply themselves in concert, the effectiveness of the integrative process will be sharply reduced.

D. Some Practical Considerations

1. *Integrate according to pupil's abilities.* The amount and type of integration for which a handicapped child is scheduled should be predicated on his ability to function. This ability is not entirely dependent upon the degree of handicap. Other functional areas that teachers and administrators use in assessing a student's potential possible success in an integrated setting are the presence of a secondary handicap, the academic achievement level, the personality of the student, his psychomotor ability if he is multiple handicapped, his social adjustment, home and family background, communication skills, and motivation. The primary question centers on the functioning level of the child applied on an individual basis. The lower the functioning ability of a particular student, the less valid the concept of integration is. Certain

children with multiple handicaps may be unable to participate in regular classes. In these cases, integration should take place primarily through other contacts such as in the lunchroom and on the playground.

2. *Need for pre-integration conference.* A pre-integration conference should take place between the principal, the regular class teacher, and the special teacher in order to work out the details of the integrated program. This particular step is essential in helping the regular teacher understand the purpose of integration. A specific point which should be explained is that the reason for integrating a pupil is to help the child—not to make the special teacher's job easier by further reducing his class size; it is actually more difficult to teach in an integrated special program than in one which is segregated. The conference is also helpful in interpreting the special class pupil's abilities and disabilities to the regular teacher. In the event that the regular teacher has some misgivings about accepting a "special" student, it is better to "clear the air" before the student is placed in the regular class than to create staff problems which can militate against the success of the integrated program.
3. *Assign only a few pupils to each regular class.* Whenever possible, regular class teachers should be assigned only one or two special students at any one time. To assign a greater number can place an undue burden on the regular teacher and may defeat the purpose of integration since the special class students may tend to cluster together and physically isolate themselves from the rest of the class.
4. *The special teacher should be an integral part of the school.* The special class teacher should be a regular faculty member and should be involved in as many all-school activities as possible. It is difficult to expect handicapped children to be accepted in regular school programs if the teacher of these children is not well accepted by the administration, by regular class teachers and by the other students.

VI

ADMINISTRATION AND SUPERVISION OF THE SPECIAL EDUCATION PROGRAM

Modern educational philosophy makes provision for the education of handicapped children and gives recognition to the fact that special education is an integral part of the regular school program. Pupils enrolled in classes for the retarded should function within the framework of the regular school program set up for all children. Such an approach envisions a program of instruction flexible enough to permit them to participate in common activities with all children and still provide for the highly individualized and small group instruction which is a characteristic of all special education.

The greatest responsibility for the success of a program for the mentally retarded rests in the school administration; for while their may be proven needs, accepted philosophy, trained personnel, proper study and testing of children, sufficient funds and available facilities and resources, the development of an effective program depends on proper and efficient administration.

A. Role of the Superintendent

As chief administrator, the superintendent should be a key figure in working out the philosophy by which the mentally retarded are accepted in the school district. He must be instrumental in securing the cooperation of his staff and outside agencies to insure the success of this program. He may delegate the responsibility for the supervision and implementation of the program to another administrator or special class supervisor. When this is done the initial responsibility for the proper classroom supervision and assistance to the special education teacher falls on the delegated person.

B. Local Special Education Supervisory Personnel

With the rapid expansion of special education services and facilities in recent years, local school districts are becoming increasingly aware of the need for employing qualified special education supervisory personnel. Where school districts have employed special education supervisors, this has been reflected in the improved quality of the programs.

The local special education supervisory person is responsible for the development and coordination of the program to meet the special education needs of all handicapped children within the school district. In providing services for educable retarded children, he joins the building principal, other administrative personnel and the special class teacher to form a comprehensive approach to providing services. The coordinator or supervisor should be familiar with the administrative avenues needed to help establish a program.

Specifically, he can do much to facilitate the processing of special needs in such areas as transportation, psychological services, program evaluation, and preparation and presentation of local and state reports.

C. The Role of the Building Principal

The building principal has the same administrative responsibilities for the special class as he does for the other rooms in his building. He should, for example, maintain general supervision of the special teacher and his room in the same manner that he does for the other teachers. He should also arrange for the special teacher to participate in the same meetings, assume the same general responsibilities and hold the same privileges that are given to the other teachers in his building.

There are also some special administrative duties which must be carried out by the principal because of the composition and organization of the special class. Perhaps the most important responsibility he has toward special education is securing proper acceptance of the special class as an integral part of the total school program. In order to do this, he must have an understanding of and a positive, accepting attitude toward the special class. In addition, he must be able to interpret the program to the other personnel in his building.

D. State Standards

The State Special Education Section, in compliance with the 1957 special education laws, has developed

standards to assist local school districts in the establishment and operation of special education programs for educable retarded pupils.¹ These standards include information on such subjects as pupil eligibility, parent consultation, class size, transportation, and reimbursement. The standards aid school districts in developing a sound program locally and also help insure continuity of the statewide special education program.

¹The standards are contained in an administrative manual entitled, *Directives Relating to Special Education for Educable Mentally Retarded Children*. Copies of the manual may be obtained from the Special Education Section.

VII

THE ROLE AND CHARACTERISTICS OF THE SPECIAL CLASS TEACHER

The teacher is, of course, the key to any good educational program. This is no less true in the case of special education for the educable mentally retarded child. It must be emphasized that the characteristics of a good teacher in the special class are essentially the same as those common to good teachers in the regular classroom. Following are some additional characteristics of the special class teacher and some specific responsibilities which he must assume:

A. More Background is Needed

The special class teacher needs, even more than regular class teachers, a broader understanding of child development, a knowledge of a variety of methods for teaching skills and a familiarity with sequential development in the skills areas. In addition, he must have an understanding of the total problem of mental retardation.

B. Must Adapt Methods and Curriculum

It is often the responsibility of the teacher to use his knowledge in the above areas in developing the curriculum for his special class. While the essentials of the program can be outlined, it still remains for the teacher to adapt these essentials in terms of his special class and the community in which his pupils live. He must be aware of the ways in which the needs of the mentally retarded child can be met through the curriculum, and he must know the facilities within the community which will aid the child in his adjustment after leaving school. He also must be aware of problems that cannot be solved in the school setting and which must be referred for solution to the other agencies.

C. Must Seek Extension of Services

It will not be unusual for the teacher of the retarded to find that he is the only special teacher in the school district. In such cases he usually will be working with youngsters at the intermediate level. While this often serves to meet the immediate needs of the district, it will become apparent, after some time, that other programs need to be developed.

Often the teacher will need to become a resource person to aid in the development of expanding programs, both at the primary and secondary levels. In order to be effective in this capacity he will need an understanding of the total educational program for the mentally retarded.

D. Must "Sell" Special Education

The teacher is often called upon to aid in developing an understanding of mental retardation in the community. In such a role he must be familiar with the part that other professions, such as medicine, social work, psychology, public health nursing, play in the total program. This, of course, is the responsibility of other professions, as well, but one of which the teacher must be acutely aware since the educational program can only be successful if the community is willing to accept its products in the community. The teacher plays a key role in the process of interpreting to the public the goals and needs of special education programs and of encouraging interested persons to enter the field.

VIII

THE USE OF COMMUNITY RESOURCES AND SERVICES

The educable mentally retarded person will usually continue to live in his community and, in order to help him develop his potentialities to the maximum, all available resources should be utilized. The school is, no doubt, the most important agency serving the retarded child, but the school should also be aware of other resources that are available in the local community and the state.

There are a number of resources that a teacher might consult to obtain information about available community services. Following are two such resources:

Resources for the Mentally Retarded in Minnesota
Minnesota Department of Public Welfare
St. Paul, Minnesota 55101

Directory of Referral and Rehabilitation Resources in Minnesota
Minnesota Department of Education
Division of Vocational Rehabilitation

A. Service Organizations

There are many private service organizations which are interested in working for the mentally retarded. An influential national organization which works in this field is the National Association for Retarded Children, 386 Park Avenue South, New York 16, New York. Although it is primarily a lay organization, it does employ a large professional staff. There is a state chapter of NARC, the Minnesota Association for Retarded Children, 6315 Penn Avenue South, Minneapolis, Minnesota, and there are about 50 local chapters throughout the state. These organizations provide numerous services such as day care centers, camp programs, and scholarships for teachers, as well as literature and films that might be helpful to parents and teachers. They also work with other organizations in developing programs for the retarded on a broad basis. Educators working with retarded children might find it helpful to contact the service organizations in their community and to solicit their help on specific problems. Civic groups and service organizations not specifically designed to help the retarded should not be overlooked.

B. State Schools for the Mentally Retarded

There are five state residential schools for the mentally retarded in Minnesota—at Brainerd, Cambridge Faribault, Owatonna, and Shakopee. These institutions are under the supervision of the Department of Public Welfare. For information about placement of a child in one of these schools, the local county welfare department should be contacted.

C. In-Service Programs of Teacher Education

In-service teacher education programs are available in several colleges throughout the state of Minnesota. The state institutions of higher learning which offer certification programs to teach the mentally retarded are the University of Minnesota, Mankato State College, Moorhead State College, and St. Cloud State College. The courses are offered on campus and in extension classes.

Information about certification can be found in *Directives Relating to Special Education for Educable Mentally Retarded Children*, Code XVI-B-32, State of Minnesota, Department of Education, or information can be obtained by writing to any one of the colleges or the university listed above.

D. Professional Organizations

It is important that special class teachers participate in the activities of the professional organizations in the field of mental retardation. Information about the two main organizations in this field is included below:

The Council for Exceptional Children, 1201 Sixteenth Street N.W., Washington 6, D. C. is a national organization of professional people in all areas of special education. It is a department of the National Education Association and has as its main purpose the promotion of strong educational programs for exceptional children and youth. This organization has a state chapter in Minnesota, as well as several local chapters throughout the state. The national organization publishes *Exceptional Children*, a monthly periodical.

The American Association on Mental Deficiency, 1601 West Broad Street, Columbus 16, Ohio, is a national professional organization for members of various disciplines working in all areas of mental retardation. They are organized on a regional basis, Minnesota being in Region 8. Their publications are the *American Journal of Mental Deficiency* and *Mental Retardation*.

E. Vocational Rehabilitation Services

Job counseling, training, and employment services for mentally retarded persons of employable age are provided by the Division of Vocational Rehabilitation of the Minnesota Department of Education in cooperation with other state and local agencies. The division can also be helpful to schools which are planning to establish a work-study program. These various services are provided by rehabilitation counselors located in 14 district offices throughout the state.

The shortage of rehabilitation counselors in Minnesota has resulted in a backlog of referrals in all disabilities, which has somewhat limited the division's involvement with mentally retarded programs. However, the division plans, in the future, to expand its service to this disability group.

Schools seeking information or referring a pupil for rehabilitation services should contact their local district office of vocational rehabilitation. Following is a list of these offices and the counties they serve.

BEMIDJI-

410 Minnesota Street 56601
Tel: PLaza 1-1340
(Hubbard, Beltrami, Lake of the Woods,
Clearwater, Mahnomen, Becker, Clay, Cass—
northern half, Norman)

CROOKSTON-

123 West 2nd Street 56716
Tel: ATlantic 1-1946
(Kittson, Roseau, Marshall, Polk, Pennington,
Red Lake)

DULUTH—

1 East First Street
304 Ojibway Building 55802
Tel: RAndolph 2-0526
(Aitkin, Carlton, Pine, Lake, Cook, Itasca,
southern St. Louis)

FERGUS FALLS-

Schact Building 56537
Tel: REgent 6-2718
(Wilkin, Ottertail, Grant, Douglas, Traverse,
Stevens, Pope)

GRANITE FALLS—

834 Prentice Street 56241
Tel: 564-3006
(Renville, Yellow Medicine, Lincoln, Lyon,
Redwood, Big Stone, Swift, Kandiyohi,
Chippewa, Lac qui Parle)

MANKATO—

106 E. Liberty Street 56001
Tel: 388-2969
(McLeod, Sibley, Nicollet, LeSueur, Rice,
Brown, Watonwan, Blue Earth, Waseca, Steele,
Faribault, Freeborn, Martin)

MINNEAPOLIS BRANCH—

801 Broadway Northeast
Tel: FEderal 2-4284

MINNEAPOLIS DISTRICT-

1516 East Lake Street 55407
Tel: 721-6555
(Carver, Hennepin, Scott, Anoka)

ROCHESTER—

415 4th Street S.E. 55901
Tel: ATlas 2-3861
(Goodhue, Wabasha, Dodge, Olmsted, Winona,
Mower, Fillmore, Houston)

ST. CLOUD-

518 South 1st Street 56301
Tel: BLackburn 2-3010
(Todd, Crow Wing, Morrison, Stearns, Benton,
Mille Lacs, Kanabec, Isanti, Sherburne, Meeker,
Wright, Wadena, Cass—southern half)

ST. PAUL BRANCH—

Room 745, City Hall 55102
Tel: 223-5146

ST. PAUL DISTRICT-

1821 University Avenue 55104
Tel: 645-4633
(Chisago, Ramsey, Washington, Dakota)

VIRGINIA—

710 9th Street No. 55792
Tel: SHerwood 1-5855
(Koochiching, northern St. Louis)

WORTHINGTON—

919 4th Avenue 56187
Tel: 376-3180
(Pipestone, Murray, Cottonwood, Rock, Nobles,
Jackson)

Part III

INSTRUCTIONAL PROGRAM

- IX. Goals of the Program
- X. Recommended Approach to Use in Teaching the Retarded
- XI. Teaching the Basic Skills
- XII. Teaching the Broad Social Studies
- XIII. Teaching the Other Subject Areas
- XIV. Scheduling, Evaluating, and Reporting Pupil Progress, and Graduation

IX

GOALS OF THE PROGRAM

A. Basic Educational Objectives

There is general agreement among special educators that the broad objectives of education are the same for the retarded as for other children. The primary differences lie in the means by which these objectives are realized and the degree to which they are attained. However, everyone, including the retarded, needs the inner satisfaction that rewarding human relationships and self-realization provide. Economic efficiency and civic responsibility are also objectives that have application to the retarded, though their realization may differ in degree from that of children with normal intelligence.

B. Specific Goals for the Retarded

While the basic objectives are the same for both regular and special education, the curriculum for the retarded must place more direct emphasis on developing certain specific goals than would be necessary in the regular classroom. These goals are stated below under two major, interrelated headings.

1. *Personal and Social Adequacy.* The goals in this category are concerned with helping the individual pupil to:
 - a. Recognize his own limitations and potentialities so that he can realistically plan for his future and make appropriate adjustments to the demands of society.
 - b. Develop emotionally healthy and socially positive attitudes toward himself and others.
 - c. Learn the essentials of health and safety and acquire appropriate attitudes and habits in these areas.
 - d. Develop skills in, and an appreciation of, wholesome recreational and leisure-time activities so that he can learn to use his free time wisely and happily.
 - e. Attain the skills and attitudes needed to become an adequate home and family member and a responsible citizen of his community.
 - f. Acquire some knowledge and understanding of the world and this country as well as his own state and community.
2. *Occupational Adequacy.* The goals in this category are concerned with helping the individual pupil to:
 - a. Develop a practical working knowledge of the basic skills, the three R's, to the maximum of his potential.
 - b. Learn to recognize and take pride in "good" performance so that he will put forth maximum effort in any task he undertakes.
 - c. Develop an understanding of the rights and responsibilities of employees and employers and of the processes and skills involved in choosing, getting and holding a job.
 - d. Prepare himself for gainful employment by providing him with a program which includes vocational guidance, work evaluations and various job experiences.

C. Planning the Program to Attain These Goals¹

If these specific goals for the retarded are to be reached, there must be a well-planned program which provides the various skills, information, and experiences necessary in developing each pupil to the maximum of his potential. In addition, teachers must be concerned with the organization and sequence of the materials to be covered, as well as the methods and approaches to be used. In planning and carrying out the instructional program, teachers should attempt to provide:

1. Appropriate learning experiences for each level of maturity so that students are neither pushed beyond their ability levels nor permitted to waste time on meaningless repetition of tasks which they have already mastered.
2. A variety of experiences so that all possible approaches to learning situations may be explored.
3. Continuity of experience and sequence of content so that each year of school builds upon the foundation of previous years.
4. Opportunity for progress so that there may be recognition by all persons concerned with the special class that the pupils are advancing in the program; this is essential since most pupils remain in the same special class for several years.

RECOMMENDED APPROACH TO USE IN TEACHING THE RETARDED

In planning and carrying out an instructional program for the mentally retarded, special teachers are often concerned with the following kinds of questions: What general approach should be used in teaching retarded pupils? Should one teach through an activity oriented, unit approach, or should a more traditional, subject oriented method of teaching be used?

There actually are no categorical answers to these questions. Some teachers have been very successful in teaching through a total unit approach; others have been equally successful with the traditional method of teaching. This suggests two points which teachers should keep in mind: (1) The personality of the teacher and the manner in which he works with his students may be as important as the methods he uses, and (2) The best approach for any one individual teacher to use is the one he feels most comfortable in using and which produces the best results for his particular students.

A. Using a Combined Approach

There are many good features in both the traditional and activity oriented approaches. Because of this, attention should not be focused on selecting one method over the other but, rather, on incorporating the advantages of each method into a combined approach to teaching. The traditional approach, for example, gives structure and a sense of order to the program. In addition, it provides for the systematic teaching of the basic skills and includes the teaching of pertinent information in the other subject areas. The activity oriented approach, on the other hand, can provide realistic experiences which give meaning and practical application to the basic skills that have been taught on a systematic basis. This approach also provides a framework through which students can learn and practice important social living skills, and it fosters the development of healthy attitudes toward work and community living.

By combining the best features of the activity and subject oriented methods, the resulting approach should be one which is superior to either of the two and which will most effectively produce the outcomes that are desired in working with the retarded. While there are teachers who can successfully use either method of teaching, the majority of good teachers, in practice, do use a combined approach.

B. Overview of the Instructional Program

Within the framework of a combined approach to teaching, the instructional program is divided in this guide into three major parts: (1) Teaching the basic skills, i.e., working with students individually and in groups in teaching reading, arithmetic, and the other tool subjects, (2) Teaching the broad social studies, i.e., teaching knowledges and skills in the social living areas and presenting pertinent information in some of the more traditional social studies subjects, and (3) Teaching some of the other subject areas, e.g., science, practical arts, physical education, music, and art.

The amounts of time allotted to the three parts of the instructional program will vary from part to part at a given instructional level and from one age group to the next. For example, more time will need to be devoted to teaching the basic skills at the primary and intermediate levels than at the junior and senior high school levels; on the other hand, in the secondary school program a larger block of time will be devoted to the broad social studies areas than in the elementary program.

Whenever possible, the broad social studies areas should be taught through an experience or activity oriented approach which: (1) Includes all of the students at the same time, working on the same activities as a group, and sharing common experiences, (2) Ties in and gives practical application to the basic skills and the other subjects which have been taught, and (3) Includes units that provide a variety of activities which are appropriate to the varying interest and ability levels of the students.

XI

TEACHING THE BASIC SKILLS

A. Academic Expectancy

The estimation of a pupil's academic potential or expectancy is generally made on the basis of his mental age as measured by a standardized intelligence test. Although mental age does not provide a perfect estimate of a student's capacity for achievement, it is considered to be the best single predictor of academic ability.

In planning an academic program for the retarded, teachers will need to use the mental ages of each of their pupils in order to: (1) Estimate whether or not each pupil is functioning up to his indicated capacity, and (2) set realistic goals for each student in the basic skills areas. This information, if used wisely, can also be helpful to teachers in total curriculum planning and can help avoid some rather costly teaching errors; for example, either frustrating pupils by giving them work that is beyond their ability or boring them with assignments that are too easy.

1. Determining Current Mental Age and Grade

As a general rule, special class pupils are retested by a psychologist every three years. While the individual student's I.Q. may remain fairly constant over the three year period, his M.A. increases during this period of time. Because of this, teachers need to bring each pupil's M.A. score up to date at least once a year, usually in September. In determining a pupil's present mental age, the following formula should be used: $I.Q. \times C.A. = M.A.$ To illustrate: A pupil was tested by a psychologist in March, 1963, with the Stanford Binet Scale, Form LM. The student, who was ten years old at the time, earned an I.Q. of 75 and an M.A. of 7 years, 6 months. In September, 1965, when the pupil was 12 years, 6 months of age, his M.A. was brought up to date as follows:

$$75 (I.Q.) \times 150 (C.A. \text{ in months}) = 113 \text{ months, or} \\ 9 \text{ years, 5 months (M.A.)}^2$$

In order to convert a student's mental age to grade level, subtract the number 5 for the first five years of life from his mental age. Following is an example of this concept, using the same illustration given above. A 12 1/2 year old pupil with an I.Q. of 75 and a mental age of 9 years, 5 months might be expected to be capable of beginning fourth grade work, other things being equal (9 years, 5 months — 5 years — 4 years, 5 months or 4th grade ability).

2. Using the M.A. with Older Pupils

While the M.A. can be used at the secondary level and would be updated in the same manner as described above, it is generally considered to be less predictive for older retarded students than for those in the elementary grades.

This situation to some extent applies to the population as a whole and is due to factors inherent in the construction and standardization of the testing instruments themselves, as well as to the phenomenon of "leveling" which occurs in all people after age 13 or 14. However, there is generally a greater discrepancy between indicated potential and actual attainment with older retarded students than with the secondary school population as a whole.

The M.A. is not only less accurate with retarded students at the secondary level but it also is less useful because there is a general decrease in the emphasis placed on learning the basic skills, with a corresponding increase in the attention focused on developing specific vocational competencies. While there is some continued vertical growth in the academic areas at the junior high school level, the senior high school program is concerned primarily with the application of these skills in practical life situations.

Thus, while the M.A. may be used at the secondary level, it will be less predictive and less useful than at the elementary level and should be used only as a very general guide. It probably will be more useful in junior high school special classes than in senior high school programs.

3. Cautions in Using the M.A.

While the M.A. can be useful as an indicator of what to expect of students in the way of general achievement, it also can be greatly misused if it is assigned more importance than its value warrants. It should

Rounded off to the closest month.

never be regarded, for example, as an absolute measure of a student's potential and, in using it, other variables must be kept in mind. Some of these are included below:

- a. *Problems in Using Test Results.* First of all, intelligence test results are often subject to error, even under the most desirable testing conditions, and should not be considered as a precise measurement of intelligence to the exact I.Q. point. Also, a pupil might score low on a test due to neurological, physical, or emotional factors which might invalidate the test results to some degree.

In addition, recent research indicates that the I.Q. may change over a period of time as a result of the kinds of educational experiences which children are given. Thus, test results which are not up to date could be quite misleading and inappropriate in curriculum planning and in estimating a student's capacity. This is the chief reason for the requirement that special class pupils be retested by a qualified psychologist at least every three years.

- b. *Problems Related to Individual Differences.* As with all children there is a great deal of variation in the intellectual, emotional, social, and motivational characteristics of retarded pupils.

Experiences show, for example, that the range of ultimate academic expectancy for the retarded may vary from second to sixth grade level. In some cases, a pupil may eventually be capable of regular class work.

It also is to be expected that some retarded students, like other pupils, will show a variance in achievement in the different basic skills subjects. That is, they may achieve higher in arithmetic than in reading or spelling. This is particularly apt to be the case with children who have organic impairment. In addition, there is a general tendency for most retarded pupils to function at a slightly lower level than their mental ages would indicate.

4. Need for Flexibility

In carrying out an academic program for the retarded, teachers need to be concerned with factors in addition to mental age. They will need to be observant of each student's progress and provide opportunities for him to advance academically as far as possible. This implies flexibility and re-evaluation rather than a rigid pattern of expectancy.

The need for flexibility in the interpretation and use of mental age scores and academic expectancy is essential to the success of the program. In other words, pupils should not be rigidly forced to function exactly up to their indicated mental grade level nor should they be held back from achieving beyond it if it is clearly indicated that they are capable of doing so. For example, when it is evident from having worked with a particular child that he is ready to read, he should be encouraged to do so regardless of whether or not he has reached a mental age of six years.

On the other hand, if a pupil achieves considerably beyond his indicated potential in a subject such as reading, teachers should first check to determine if his comprehension is essentially on a par with his ability in the mechanical skills of reading. If both are on the same approximate level, it may be necessary to refer the pupil for a new psychological examination.

An adequate educational program for the retarded, therefore, includes the practical application of mental age scores and academic expectancy. It also implies thorough diagnosis, constant re-evaluation and close observation, as well as good teaching. Flexibility and opportunity for achievement should be the watchword at all times.

B. Oral Communication³

The ability to listen purposefully and to speak effectively are clearly essential skills which all children must learn. However, while many children in the regular grades come to school with considerable facility in oral communication, this often may not be true with pupils who are mentally retarded. Because of this, special teachers should provide many experiences which will help their students to develop these skills to the maximum of their potential.

The development of listening and speaking skills is especially important for the retarded because (1) a good portion of the information which they will acquire throughout their lives will be by spoken, rather than written communication, and (2) the impressions they make on society in general and on their employers

Parts of this section have been adapted from the Detroit and Illinois guides. See reference in the bibliography.

and fellow workers in particular, apart from their dress and general appearance, will largely depend on their ability to converse with others and to follow oral directions effectively.

1. Oral Language Activities

Activities which aid in the development of listening and speaking skills are usually introduced from the very beginning of a child's school experience. For example, the development of oral communication skills is an integral part of and plays a vital role in the reading readiness programs in both regular and special education. Whenever possible, opportunities for the continued development and practices of these skills should be included in all school experiences, including unit work and field trips, as well as in the teaching of some of the more traditional subjects.

The skill of listening may be developed through such avenues as games, stories, conversation, and experiences in listening to directions. Specific exercises, with listening as the primary objective, should be planned and carried on at all levels of the child's maturity. Books such as *Listening Aids Through the Grades*—Teachers College, Columbia University—include many suggestions which will be helpful to teachers in the development of this skill in their students.

Some of the common activities used in the development of speaking skills are: Telling stories, taking part in discussions and conversations, using the telephone, making various kinds of reports, making announcements, giving descriptions, making introductions, taking part in choral reading exercises. Teachers will also find a book such as *Speech for the Retarded Child*⁴ to be of real assistance in developing and carrying out an ongoing speech development and speech improvement program.

Because listening and speaking are so closely related, many of the activities included in the preceding paragraphs have application to both areas. In addition, most of these activities will also aid in the development of an effective vocabulary.

2. Speech Correction

In addition to the fact that many retarded children are slow in general language development, a rather large number of special class students also may have a specific language or speech disorder. That is, their speech may be so poor that it calls attention to itself, or interferes with communication, or is particularly unpleasant to the listener. If a speech correctionist is employed by the school, special teachers should seek assistance from him in evaluating the speech of their students. The correctionist can be helpful to teachers in developing a speech improvement program which will be beneficial to all of the pupils in the class. In addition, when it is necessary and feasible, he will request that certain pupils come to him for regular periods of speech therapy.

If a speech correctionist is not on the local school staff, arrangements should be made through the principal's office for pupils with speech disorders to be referred to a correctionist in a neighboring school district or some other appropriate community agency. In these instances the correctionist will be able to provide consultation to the teacher and may, in certain cases, be able to provide therapy for some of the pupils.⁶

C. Reading

Reading is generally considered to be one of the most difficult subjects for the mentally retarded in the entire special class curriculum. It also is regarded as one of the most important. The ability to read is basic to many activities, both in school as well as in adult life, and it is an important key to adequate social and vocational adjustment.

Retarded students need to be able to read for the same practical and functional reasons that all people read. Although they will not use reading as extensively as other people, most special class students can learn to read sufficiently well by the time they leave school so that they can use it independently in most practical life situations.

There are three types of reading which are frequently mentioned as desirable outcomes for the retarded.

These are:

1. Reading for protection, i.e., being able to recognize and understand various signs and labels found at home and in the school and community for purposes of minimal safety in today's world.

⁴Curriculum Bulletin 1958-59, Series #7, 110 Livingston Street, Brooklyn, New York.

⁶The services of the speech correctionist are reimbursable by the state in the same manner and at the same rate as are the services of the special class teacher

2. Reading for information and instruction, for example, reading newspapers and books for specific information as well as reading directions of various kinds, television and bus schedules, signs, notices, announcements, labels, and so forth.

3. Reading for enjoyment, for example, reading simple books, magazines, and selected parts of newspapers.⁸

Most educable retarded students can develop appropriate skills in the first two types of reading. Some will also learn to read for pleasure. In addition, there may be a few pupils who can only learn to read for their own protection and safety.

Reading is also important for the retarded pupils apart from its practical value. That is, it is important for social and psychological reasons. Because of the paramount position reading holds in modern society, it is generally expected that all pupils will learn to read. There is perhaps nothing which sets a student apart from the other pupils so much as does the inability to read. It also can have an adverse effect on his own attitudes and self-concept, especially if he is in a secondary school program. Conversely, the ability to read helps the student to gain importance and prestige in his own view of himself and can reduce the chances of his being regarded as "different" by others.

The ability to read, therefore, is important for the educable retarded, not only because it is a practical skill in daily living but also because it helps to keep them a part of, rather than apart from, the main stream. For these reasons, teachers have an obligation to develop each pupil to the maximum of his potential in reading.

1. Purpose of this Section

The purpose of this section on reading is to give some guidelines and points of view relating to the reading program for retarded children and to suggest some resource materials which will be helpful to teachers in carrying out the program. The section is not intended, however, as a manual on how to teach reading. Teachers who do not have a basic knowledge and understanding of the reading process and of the various methods of teaching reading should become acquainted with one or more of the basic reading series and with some of the standard textbooks on the subject. Without this knowledge it will be difficult, if not impossible, for a teacher to develop and carry out successfully a reading program for the retarded.

Following are some textbooks on reading which should be useful to special teachers:

Brueckner, Leo J., and Bond, Guy L. *The Diagnosis and Treatment of Learning Difficulties*. Appleton, 1955.

Harris, Albert J. *How to Increase Reading Ability*. McKay, 1961.

Kirk, Samuel A. *Teaching Reading to Slow-Learning Children*. Houghton.

2. Some Basic Ingredients in the Reading Program for the Retarded

In developing a reading program for any group of children, but especially for pupils who are mentally retarded, a number of factors must be considered by the teacher if the program is to be effective. Some of these basic ingredients which will be discussed in more detail in the remaining parts of this section are:

- a. Providing a well-rounded developmental reading program which includes development of reading readiness, a sight vocabulary, word attack skills, and comprehension skills.
- b. Prolonging the initial reading period and the other developmental stages of the reading program until the pupil is ready to proceed to the next stage.
- c. Determining the reading level of each pupil through a program of testing and observation.
- d. Using appropriate reading materials which are geared to both the interest and ability levels of the students.
- e. Providing purposeful activities outside of the formal reading program that help to make the skill both necessary and meaningful to the students.

3. Stages in Reading Instruction

The developmental stages in the instruction of reading are essentially the same for the mentally retarded as for all children. However, in the reading program for the retarded, it is necessary to prolong each stage. Also, the level of reading reached by retarded pupils is not as high as that attained by other students and the retarded seldom reach the more advanced stages of reading.

Following are some of the stages in reading instruction which are most pertinent to a reading program for the retarded:

⁸Adapted from Elise Martens, *A Guide to Curriculum Adjustments for Mentally Retarded*, p. 61.

- a. *Readiness or Prereading.* A good portion of the reading program for retarded pupils in the primary years is devoted to carefully planned reading readiness activities. In fact, special classes for primary age children are essentially prolonged readiness programs in reading as well as in some of the other basic skills areas. Although the children may be somewhat older, the types of activities in the special class program are similar to readiness programs in regular kindergarten and beginning first grade classes. For example, the program should include development of a rich experiential background through excursions, listening to and telling stories and so on. In addition, emphasis should be placed on development of auditory and visual discrimination through games, simple exercises in various workbooks, and so forth.

Special teachers who need assistance in developing a reading readiness program will find much help from various books on prereading activities which are available to most regular primary grade teachers.

- (1) **WHEN TO BEGIN FORMAL READING.** This question can be answered only through a careful evaluation of each pupil. The use of reading readiness tests, combined with the individual intelligence test results, plus observation of the pupils in various learning situations, should be helpful to teachers in determining if individual pupils are ready for beginning reading.

In observing a pupil, teachers should be concerned with the child's ability to use language at a level that is necessary for reading. Is he capable of telling events and stories with clarity? Has he demonstrated that he has adequate visual, auditory, and kinesthetic perceptual skills? Has he demonstrated that his memory span is adequate for beginning reading?

Perhaps most important of all, has the youngster demonstrated an interest in learning to read?

If the teacher can answer these questions in the affirmative, it is likely that the pupils would be able to proceed with a more formal approach to instruction in reading.

- (2) **READINESS AT OTHER INSTRUCTIONAL LEVELS.** "While readiness is an initial developmental stage which all children go through in learning to read, it is important to remember that readiness is also an initial step in learning any new skill and that it must be developed at all levels of instruction for each new topic or skill that is taught.

- b. *Beginning Reading.* This stage may be reached at approximately age eight for some retarded children and for others it may not be attained until they are well into the intermediate program. At this stage teachers should make ample use of experience charts, introduce the pupils to selected beginning readers and begin teaching certain word recognition skills. It perhaps is evident that this stage cuts across and overlaps with the more traditional primary and intermediate grade groupings.

- c. *Increasing Efficiency in Reading.* This stage begins in the intermediate grades for most retarded pupils and it may continue through the junior high school program. There also may be some instances where developmental reading as such will be continued on into the high school program.

The formal reading program at this stage is concerned primarily with helping the individual pupil to learn to read independently through the teaching of word recognition skills. Pupils should be exposed to a variety of methods for attacking new words since no one approach will work equally well for all students and, also, because the construction of the language is such that no single method will suffice for all situations.

Therefore, while a phonetic approach may be introduced to the pupils, this should not be done to the exclusion of teaching the use of context clues or finding the little word in the big word and so forth. In addition, all students will need to develop a sight vocabulary of commonly used nonphonetic words as well as words of special significance.

Although a variety of word recognition techniques should be introduced, this should be done on a carefully planned, systematic basis in order to insure that the pupils will learn the various skills taught. Some drill will be necessary, but the particular skill or technique that is being introduced should be carefully taught and the subsequent drill should be as meaningful as possible.

The reading program at this stage must also include development of comprehension skills through the use of well-graded readers and appropriate seatwork exercises. In addition, appropriate experience charts and stories written by the teacher should be included and, whenever possible, the practice of reading skills should be tied to the unit activities and other parts of the daily program. Again, teachers

not familiar with the reading process will find it helpful to refer to the teacher's manual of a basic reading series. This is particularly important if teachers are using a set of readers which does not have a well-defined teacher's manual with a prescribed reading program to follow.

- d. *Horizontal Growth in Reading.* The three preceding instructional stages are common to most reading programs in both regular and special education. Beyond the third stage, however, there is a greater variance between the two programs in the instruction of reading. Horizontal growth in reading as a formal stage usually begins at the high school level for most retarded pupils although this may be started at the upper junior high school level for some students. This stage is concerned almost entirely with providing experiences for applying reading skills in practical life situations and learning to do specific kinds of reading, e.g., the reading of applications and a variety of directions as well as doing the kinds of reading that are involved in shopping, working, and in the typical home situation.

As in the case of readiness, this stage is not only a formal stage in reading, but it also has application at all instructional levels. That is, the practical application of the skill must pervade the entire reading program for the retarded if reading is actually to serve a useful purpose for these students in adult life.

4. Determining Reading Level

In setting up the reading program at the beginning of each school year, a necessary first step for teachers to follow is to determine the level of reading ability of each of their students. This information gives teachers a point of departure and a specific goal toward which to work with each pupil. In addition, it forms the basis for grouping the pupils for instruction in reading, as well as for selecting the appropriate books and other reading materials to be used with each group.

This is essential procedure to carrying out a well-planned reading program for any group of children. Reading is a complex and difficult subject for all students but especially for the retarded. For this reason, it must be approached on a systematic basis at every level and in every phase, including the matter of estimating reading level. The determination of reading ability of each pupil in the special class should include at least the following two steps: (1) Measuring each pupil's oral reading level, and (2) administering a standardized silent reading test. These two steps will be discussed below:

- a. *Measuring Oral Reading Level.*⁷ One of the most commonly used methods of measuring a pupil's oral reading level is to have him read selections from a well-graded series of basic readers, preferably one that is not familiar to the class or to the child. This should be done individually with each pupil while the rest of the class is working on other assignments.

Teachers should start each pupil with an easy selection and move up or down in difficulty, depending on how well the pupil does. The number and types of errors he makes while reading the selection would be noted and, when he has finished, a check should be made to determine his comprehension of the material. As many levels should be tried as are necessary to determine the proper reading level for each pupil.

Generally, the student's level for independent reading is indicated when he makes not more than two or three word recognition errors in each hundred words, not counting self-corrections, and answers most of the comprehension questions correctly. Conversely, the reading material is probably too difficult for a student if he (1) averages more than five word recognition errors per hundred words, (2) fails to comprehend well, or (3) begins to hesitate, repeat, and make errors on easy words which he usually knows.

Some teachers may prefer to administer a standardized oral reading test such as the "Standardized Oral Reading Paragraphs" by William S. Gray, Public School Publishing Co., Bloomington, Illinois. This particular test not only provides a measure of reading level but also may be used for diagnostic purposes since observations of the errors made by the child, classified as vowel errors, omissions, for example, are recorded.

- b. *Using Standardized Silent Reading Tests.* Standardized silent reading tests, if chosen carefully and used wisely, provide the most efficient method of estimating a student's silent reading level and are valuable as a means of measuring growth in reading over a given period of time. However, since none of these tests has been designed specifically for the retarded, whatever score a particular student earns should not be considered a precise measure of his reading ability. This is one of the reasons for using more than one method in estimating a pupil's reading level.

⁷Adapted from Albert J. Harris, *How to Increase Reading Ability*, Longmans, Green and Co., New York, 1955, page 133.

Although the range of reading ability in a special class may spread over several years, it generally will be possible to give the same test to the entire class. This is because the test norms usually cover several grades. It may be necessary for certain pupils, however, to follow up with another test.

Standardized silent reading tests which are selected for use with the retarded should be those which are (1) at the same approximate mental grade level of the students, usually primary or beginning intermediate, (2) essentially power tests with little emphasis on speed, and (3) easy to administer and score.

- c. *Comparing Reading Level with Mental Ability.* After the mental age and reading level of each pupil have been determined, teachers may wish to include the results on a chart similar to the one following. This gives an overview of the class, helps in determining the reading groups and can be used to record reading growth in a given year.

Included on the chart for illustrative purposes are three 12 year old pupils, A, B, and C, who are in an intermediate special class. The pupils have all been tested on the *Gates Advanced Primary Reading Test* which covers the two areas of word recognition and sentence meaning.

NAME	CA	Q	MENTAL		READING (SEPT.) ⁸		READING (MAY) ⁸	
			AGE	GRADE	W.R.	S.M.	W.R.	S.M.
A	12.0	55	6.6	1.6	1.5	1.3		
B	12.0	70	8.4	3.4	3.2	2.9		
C	12.0	75	9.0	4.0	1.6	1.4		

PUPIL A is only at the beginning reading level, both from the standpoint of his mental age and grade level, as well as his reading test scores. On the basis of this information he may be continued in beginning reading activities but the focus of the reading program for him should be on developing a functional vocabulary of such words as exit, entrance, danger, stop, wait, and poison.

PUPIL B is reading approximately on par with his indicated mental level and should be given a well-rounded reading program, including development of word recognition and comprehension skills with appropriately graded materials. He, too, should develop a sight vocabulary of functional words and should be given opportunity for practical application of his reading ability through unit activities.

PUPIL C is reading far enough below his indicated potential to be considered a reading disability case. Through a diagnostic approach to determine the cause of his reading disability and through the use of appropriate remedial techniques, he may be able to be brought up to third grade level in reading, other things being equal. He, of course, will have to be started with materials that are at or slightly below his present reading level in the daily program. See Remedial Reading, 7, below.

- d. *Periodic Retesting to Measure Progress.* Pupils should be retested at the end of the school year using a different form of the same test used in September in order to measure their growth in reading over the year. Some teachers may also wish to retest in January or February. The results can be included on the preceding chart as a record of the students' progress in reading over the year.
- e. *Using Reading Tests at the Secondary Level.* Since developmental reading is generally considered to have a place in the curriculum of the junior high school special class, it will be necessary for pupils enrolled in these classes to be tested in the same manner described above. Most of the standardized elementary level tests can also be used with students at this level.

The curriculum of the senior high school program, however, focuses almost entirely on horizontal growth or the practical application of skills learned in the earlier grades and, because of this, standardized reading tests play a much smaller role at this level than in the junior high school program. On

the other hand, informal reading tests do have an important place in the curriculum at all instructional levels, including the senior high school program.

- f. *Using Informal Reading Tests.* Teachers will find it helpful to use a number of informal, teacher-prepared tests throughout the year to measure the progress of their pupils on various aspects of reading and to stimulate the interest of their students in reading.

Comprehension tests can be given to measure progress in the developmental reading program for each group. In addition, teacher-made tests can be used to measure the pupils' skills in reading newspapers, directions, signs, charts, and in other functional parts of the curriculum involving reading.

- g. *Need for Flexibility.* While determining the reading level of each pupil is an essential step in the reading program, teachers should not entirely rely on the results of the various testing methods employed and should instead make use of their daily observation of the pupils. First, tests are by no means infallible and they often tend to score higher than the level at which the pupil is actually able to function.

In addition, there are a number of variables which might distort the various initial attempts at estimating a pupil's level of reading ability. For example, if a pupil is new to the special class and is shy or nervous, he may be unable to read in either oral or silent reading at his actual level. Also, there are marked deviations in difficulty among books that are supposedly all at the same grade level, so that reading level determined in one set of books may not be sufficiently high for reading in another set. For these reasons, each pupil's progress in reading, or lack of it, should be observed on an ongoing basis and easier or harder reading materials should be substituted as indicated. It may be necessary, for example, to reassign a particular student to a different reading group after the first month of school. This change should be made whenever it is clear in the teacher's mind that it is necessary and justifiable. The observations of teachers generally should take precedence over any test results because the manner in which a pupil performs in the daily reading program is actually the real measure of his current reading ability.

Sometimes there may be a marked discrepancy between a pupil's ability in oral and silent reading. When this occurs, it is probably best to assign reading materials to the pupil which are at the lower level of difficulty.

5. Methods and Approaches

There is general agreement among special education personnel and reading experts that there are no special techniques for teaching the retarded to read, nor is there a so-called "best" method which is especially applicable to the reading needs of these pupils. In other words, the basic methods of teaching reading are the same for the retarded as for all students.

As with pupils in regular classes, procedures which are effective with some retarded students may not work equally well with others. Learning to read is a complex process which is dependent upon a number of factors and subject to a wide range of individual differences. Because of this, special teachers, like teachers of children in regular grades, must be able to vary their methods and materials in the light of the needs of individual pupils.

In spite of the similarity of specific teaching techniques, there are some rather distinct differences in the reading program of the regular grades and that of the special classes. These differences are due to the general learning characteristics of the retarded and to the composition of the special class. First, the overall range of reading ability in the special class is much less, growth in reading is much slower and the outcome or extent of vertical growth is considerably smaller.

In addition, learning to read is an extremely difficult task for the retarded because of their general difficulty in handling abstractions and symbols, as well as their slow rate of progress. The problem is further compounded by the fact that most retarded children do not come to the special class until the intermediate grades, and they often enter the class as reading failures with an understandably poor attitude toward reading.

The learning characteristics of the retarded and the composition of the special class, therefore, make it necessary for the special teacher to develop an overall approach that is somewhat different from that used by regular teachers. First, he must be more diagnostic and systematic in teaching reading than is necessary in the regular class. Second, he must be acquainted with, and make use of, a wider variety of

methods than would be traditionally covered in the regular teaching manuals and he must be inventive, where necessary, in teaching a particular skill or word.

In addition, the overall approach to teaching reading should be one which takes advantage of the retarded pupil's tendency to grasp the concrete and, at the same time, helps him proceed toward abstractions and comprehension rather than using a purely rote method. Finally, there is a need to provide considerably more opportunity for practice of reading in realistic situations outside of the formal developmental reading program.

6. Changing the Attitudes of the Pupils Toward Reading⁹

Mention has already been made of the fact that many retarded children come to the special class only after several years of reading failure in the regular grades. As a result, the pupils will often have a very poor attitude toward reading or anything associated with it.

If the students are going to progress in the reading program, teachers must change the pupils' attitudes toward reading and create within them the desire to learn to read. This is by no means a simple task and the precise approach to use in accomplishing this will vary from student to student. However, following are some general techniques which may be helpful:

- a. Avoid presenting reading materials in which the pupil has already failed in the regular grades and instead provide materials that are new, interesting, and simple enough to guarantee some degree of success from the outset.
- b. Provide easy material that will encourage him to continue to practice his growing skill and, in order to safeguard as far as possible his chances for repeated success, increase the difficulty of the tasks very gradually.
- c. Encourage the pupil to compete only with himself and make sure that he is aware of his progress in reading.

7. Remedial Reading

Any pupil who is reading at a level that is considerably below his indicated potential is considered a reading disability case and will require remedial instruction. In terms of this definition, some retarded pupils will require a remedial reading program.

- a. *Diagnosis.* Diagnosis is an essential first step in any program of remediation. That is, an attempt must be made to discover why a particular student is not reading up to his ability. This can be determined through an informal appraisal by the teacher of the student's reading habits and abilities. For example, what phonetic analysis skills does the student possess? Does he know beginning sounds, vowel sounds and endings? Does he have difficulty with reversals, and so forth?

Teachers might also wish to use a more systematic approach to determining the specific reading problems of their students by administering a diagnostic test, such as the Bond-Clymer-Hoyt Silent Reading Diagnostic Test published by Lyons & Carnahan, 1955. This is one of the few diagnostic tests that (1) can be given as a group test as well as an individual test, and (2) measures a student's reading characteristics in silent rather than oral reading. It also is easy to administer and score.

Although the profile on this test may not have the same significance for the retarded as it would for children in regular classes because of the test norms, the various subtests will yield a good picture of the individual student's reading characteristics. Following are the various subtests which are included:

Recognition of words in isolation, recognition of words in context, recognition of reversible words in context, locating elements, syllabication, locating root words, knowledge of beginning sounds, knowledge of rhyming sounds, knowledge of letter sounds, and word synthesis.

- b. *Remediation.* The correction of severe reading disabilities generally requires the skills of a highly trained reading specialist. However, for many reading disability cases, "remedial reading" is nothing more than effective developmental teaching at the level at which the pupil is actually functioning in reading. In the special class the majority of pupils with specific reading disabilities can be helped by teachers through the on-going instructional program.

Once the source of the disability has been determined, an appropriate plan to overcome the problem should be drawn up. For example, if a pupil is particularly weak in phonics, a part of his reading

program should include specific work in this area, starting at the point at which he is already familiar with the skill. For older students who need work in phonics the use of the *Remedial Reading Drills* by Kirk, Hegge and Kirk, Wahr Co., Ann Arbor, Michigan, may prove helpful. The suggestions included under item 6 preceding "Changing the Attitudes of the Pupils Toward Reading" are also pertinent to the remedial reading program. The references mentioned under 1, *Purpose of this Section*, include many specific techniques which will be helpful to teachers in working with pupils who have a reading disability.

If a particular student shows little progress after a month or more of concentrated instruction on a particular deficiency, other methods should be tried. In some instances a student may have a major weakness which apparently is uncorrectable. In such cases it may be necessary to concentrate on other reading areas in an attempt to offset the deficiency insofar as possible. For example, if a student is unable to use a phonetic approach effectively in attacking new words, it may be necessary to concentrate on developing a large sight vocabulary as well as using other forms of word analysis.

Teachers should not give up on any aspect of reading until it is clear that the pupil is unable to comprehend the material, and even then teachers should go back from time to time to check the pupil's readiness and ability to learn the particular technique or skill. It must be remembered that one month of remedial instruction is not going to offset the several years of reading failure in the regular grades which the student may have experienced.

If there is a remedial reading teacher in the school, special teachers may find it helpful to seek advice and assistance from him regarding certain children. Also, there may be an occasional pupil who has a severe specific learning disability which does not respond to the usual classroom techniques. In such cases, teachers should refer the pupil for a more thorough diagnosis by a school psychologist or for a complete diagnostic evaluation at a specialized facility. Examples of such facilities are the Psycho-educational Clinic at the University of Minnesota and the Psycho-educational Clinic at St. Cloud State College.

8. Types of Reading Materials for Use in the Special Class

Although there has been a considerable increase in recent years in the availability of high interest-low vocabulary reading materials, the problem of finding suitable reading matter nevertheless remains one of the most difficult tasks for special teachers in the day to day instruction of educable retarded pupils. This section is concerned with a discussion of general types of reading materials and their use in the special class. A selected list of reading materials is included in part 9 following.

- a. *Experience Reading Materials.* Experience charts and duplicated materials are most frequently identified with the reading program of the primary grades. However, experience reading materials, when carefully prepared, can and should be used at every instructional level. For example, at the senior high school level, experience reading might include the use of job analysis charts, directions for specific job areas, and so on.
- b. *Basic Readers.* There is no uniformity of agreement among educators on the use of a basic reading series with retarded students. Those who are opposed to their use point out that (1) the interest level of the material is considerably below that of most special class students, and (2) the reading program, as presented in the teachers' manuals which accompany the basic readers, is designed to fit the developmental patterns of average children, and consequently does not lend itself to the slow rate of progress of the retarded.

On the other hand, proponents argue that a good basic reading series provides the only sound, systematic approach to the teaching of reading and that the use of such materials must be included in the reading program of the special class if any degree of success is to be attained in teaching reading to the retarded.

This guide supports the view that because of the wide range of individual differences within the special class in terms of interest, ability, and motivation, the matter of whether to use a basic reading series in the special class cannot be reduced to an either/or situation.

On the one hand, if the use of a basic reading series works for an individual child or group of children, then it should certainly be used. In fact, the use of these materials, supported by a well-planned supplemental reading program, is far superior and much more effective than using an approach which

is haphazard and unsystematic. Some adaptations may be necessary in the use of the teachers' manuals, however, in order to fit the reading program to the learning pace of the students.

On the other hand, many special teachers will find that the demands of some of their students will necessitate using reading texts that are more in keeping with the interest level of the pupils. When this is the case, teachers should select a well-graded reader for each group and use it as the basic book for the developmental reading program for that group in the same manner that a reading text from a regular reading series would be used.

While many of the newer texts do meet such criteria as high interest in content and a carefully controlled vocabulary, they often do not have a well-developed teacher's manual. Because of this fact, special teachers will find it necessary to adapt the teacher's manual of a regular reading series to correspond with the ability levels and learning pace of their students. This is no simple task, and it is one of the reasons why special teachers must be thoroughly familiar with the reading process and with the various techniques used in the teaching of word recognition and comprehension skills.

Whether teachers use a basic reader or one of the newer graded books, it is suggested that the books become "the basic reader" for that group in terms of teaching word recognition skills and developing comprehension abilities. That is, seatwork exercises for comprehension work should come from the stories in "the basic reader," as should many of the word recognition exercises.

In addition, the basic developmental reader should be supplemented with other reading materials as an extended part of the formal reading program. In other words, when pupils have finished their daily assignments from the basic readers, they should be encouraged to read from another book just for the fun of reading. It may be necessary for the supplemental readers to be at a slightly lower level than the developmental reader since the students will be reading these books more or less on their own.

- c. *Reading Workbooks.* The value of reading workbooks in the special class is also a controversial topic. However, the controversy seems to stem from instances involving the misuse of such materials rather than whether or not they should be used.

Reading workbooks should not be used, for example, for purposes of giving busy work or where the assignment has no application to the learning of a new skill. On the other hand, they have a definite place in the reading program when they are used to reinforce a particular skill that has been introduced during the group reading period.

Usually a variety of workbooks will be needed because special class students need a greater amount of reinforcement and practice in learning a particular sound or skill than would be true of most regular class students.

- d. *News Media for Students.* Student periodicals such as the "Weekly Reader" and other similar magazines make it possible for retarded pupils to keep abreast of current happenings. Most of these publications are graded in difficulty so that appropriate levels of materials may be secured for each of the reading groups within the special class.
- e. *Newspapers.* The local daily or weekly newspaper is a good source to use with most students who are beyond the beginning reading stage. For younger pupils, newspaper reading may involve little more than identifying the name of the day, checking on the key word for the current weather conditions, and so on. Older pupils may be guided through certain major stories, sports, and other special articles. Most high school age students should learn how to use the want ad section.
- f. *Recreational Reading Materials.* Much of the supplemental reading program should be made up of a variety of reading materials which are both interesting and enjoyable to the students. Through this kind of reading pupils are able to reinforce skills learned during the regular developmental reading period. A wide range of graded recreational materials is now available and teachers should be able to find suitable materials for their classes.
- g. *Teacher Prepared Materials.* Special teachers may frequently find it necessary to prepare certain reading materials in addition to those which are already published. This is especially true in terms of materials relating to science or the broad social studies areas. In writing these materials, teachers should attempt to make them meaningful and simple to read, both from the standpoint of vocabulary and sentence construction. The preparation of such materials can be very difficult and time consum-

ing, but these materials are essential to the reading program. Fortunately, proficiency in preparing such materials seems to increase with continued practice.

- h. *Reading to the Students.* Teachers should make a practice of reading an interesting and enjoyable book to their entire class from time to time with no other purpose in mind than to give their students a moment of pleasure and a chance to enjoy a good story without having to go through the rigors of reading it themselves.

The curriculum of the special class is generally centered so much on preparing pupils for the world of work that they often have few chances to participate in pleasurable academic activities. Also, since these students cannot participate in the regular reading and English classes, they will miss the opportunity of enjoying a good book or a story "unless it is presented in the special class. Books such as Tom Sawyer, Huckleberry Finn, and other "classics" in literature will certainly be enjoyed by most retarded students who are beyond the primary grades.

The reading of such stories not only may give some enjoyment to the students, but it will also help them to better appreciate the value of reading apart from its functional purpose. Some of the more able students in the class may ultimately read a graded version of some of the books read by the teacher.

9. Selected List of Reading Materials

Following is a very brief list of some of the materials that can be purchased for use in special classes for the retarded. This list should be of assistance to beginning special teachers in initially selecting materials for their classes, and it gives an example of the kinds of reading matter that are currently available. In purchasing materials for their classes, teachers should not limit themselves to this list. There are, for example, many reading materials commonly used in the regular grades that have a place in, and should be purchased for the special class reading program. Also, the bibliographies included at the end of the list contain many other sources which teachers might wish to use in their classes.

Teachers are encouraged to purchase a wide variety of materials. School districts will be reimbursed by the state for the purchase of these materials, as well as for tests, workbooks, and other supplemental reading matter, at the rate of one-half of the cost of the items purchased, not to exceed \$50.00 per child per year in reimbursement.

BIBLIOGRAPHY

Reading Readiness Materials

Parkinson, R. W., & Associates, 704 Mumford Drive, Urbana, Illinois, *A Reading Readiness Program for the Mentally Retarded*. Primary Level by Goldstein & Levitt. (Classroom set for 15—\$50.00)

Consists of a full classroom set of materials designed to strengthen the perceptual and cognitive skills of primary level retarded pupils.

Science Research Associates, 259 East Erie Street, Chicago 11, Illinois, *Learning to Think Series*, (three levels, \$1.50 set). Red Book, Blue Book, Green Book, and Teachers Manuals.

This series of workbooks gives primary teachers teaching materials that combine learning with play. An excellent supplement to the readiness program.

Graded Reading Texts

Benefic Press (Beckley Cardy), 1900 N. Narragansett Street, Chicago 39, Illinois.

Benefic Press publishes a variety of books that are excellent for use in a special class. Some of these are: *Cowboy Sam Series*. Three books at each level (PP-3), with 15 books in all. Interest level up to three years above reading level. Average net cost \$1.90. *Bucky Button Books*. Two or more books at each level (PP-3), with 12 books in all. Interest level up to three years above reading level. About a "blue collar" family. Average net cost \$1.80. *Dan Frontier Series*. Eleven books, pre-primer through fourth grade. High interest. Average net cost \$2.30.

Readers Digest. Educational Department, Pleasantville, New York. *Reading Skill Builders*.

Excellent for use in special class. Stories are adapted from *Readers Digest*. Grades 1-8. Three books and teachers manual at each level. Approximately 50c per copy.

Heath, D. C. & Company, 1815 Prairie Avenue, Chicago, Illinois. *Teenage Tales—Books 1 and 2*.

About fourth grade level. Excellent. Reader has opportunity for self-identification and, in turn, self-evaluation.

Scott Foresman & Company, 433 Erie Street, Chicago 11, Illinois. *Simplified Classics*.

High interest and approximately fourth grade reading level. Includes such stories as "Around the World in Eighty Days," "Treasure Island," "Tom Sawyer," and "Robinson Crusoe." Approximately \$2.70 per copy.

Harr Wagner Publishing Company, 609 Mission Street, San Francisco 5, California.

Deep Sea Adventure Series (eight books and teacher's manual—\$18.00). Reading level ranges from beginning second to high third. High interest, excellent for supplementary reading.

Jim Forest Readers (six books and teacher's manual—\$14.00). There are workbooks that accompany the first two readers. (44c). Reading and interest level correspond approximately with the Deep Sea Series.

Morgan Bay Mysteries (four books and teacher's manual—\$9.40). Two on second level and two on third grade level.

Miscellaneous Materials

Bureau of Publications, Teachers College, Columbia University, New York, New York, *Reading Aids Through the Grades* (\$1.25) and *Listening Aids through the Grades* (\$1.50).

A description of 300 developmental reading activities. Very useful in planning reinforcement and motivational activities. Teacher resource only.

Stanwix House, Inc., Pittsburg 4, Pennsylvania. *A Functional Basic Word List for Special Pupils*—\$1.50.

List of basic words in three major divisions—elementary, intermediate, and advanced. There are also special lists of common abbreviations and common signs and employment signs.

Saint Paul Public Schools, Special Class Book List, Publication #290, St. Paul, Minnesota, 1963.

University of Minnesota. *Annotated Bibliography of Books, Workbooks and Teaching Aids*. State of Minnesota, Department of Education, Code XVI-B-76.

D. Handwriting

Handwriting, which is one of the basic tools of written communication, is essentially a motor skill that develops gradually in all children as they progress through school.

Although there are some differences in the motor abilities of regular and special class pupils, the discrepancy is not as great as it is in the intellectual areas. Because of this, the retarded generally develop a degree of proficiency in handwriting that is more nearly on a par with pupils in the regular grades.

The methods and procedures for teaching handwriting to the retarded are very similar to those used in teaching handwriting to all children and much of the instruction in this area, in both regular and special education, centers around functional activities such as making copies of experiences reading materials or writing letters. In addition, the emphasis in both programs is on neatness, legibility, and accuracy, although speed is a factor which continues to be stressed in the regular school program. As in the regular grades, manuscript writing should be introduced first and a fair degree of proficiency developed in this form before commencing with the teaching of cursive writing. However, since writing must be taught and learned in relation to other language arts skills, this means that handwriting may not be introduced in the special class as soon as in the regular grades.

Retarded pupils may be taught to print their own names and to write a few simple words very early in the primary grades. However, the point at which this skill is formally introduced in the special education program will largely depend upon the progress of individual pupils in the reading and spelling program.

Most retarded pupils can learn cursive writing and should learn it since it is the accepted writing form used by adults. However, the transition from manuscript to cursive, which will be made at the intermediate or junior high school levels for most retarded pupils, should be a gradual one and should be undertaken only when in the judgment of the teacher the pupils are ready to make the change.

As is true in all learning, there will be a wide range of individual differences among the special class pupils in terms of their ability to learn handwriting skills, especially cursive writing. If a student appears incapable of mastering the cursive form with some degree of legibility, manuscript writing may need to be continued. However, teachers should not give up on such pupils and should periodically check the students' readiness to make the change. In any event, all pupils should learn to sign their names in cursive form, and if possible, should be taught to read cursive writing.

Teachers not familiar with methods for teaching handwriting should secure copies of regular writing workbooks, such as *I Learn to Write*, E. C. Seale & Co., 1953. Also books such as *Diagnosis and Treatment of Learning Difficulties*, Brueckner, et al., include a number of suggestions for helping teachers work with children who have difficulty in learning to write legibly and with ease.

E. Spelling

Spelling, which is another of the basic tools in written communication, starts at approximately the point where pupils begin to write.

The aim of the spelling program in special classes should be to teach retarded students to spell correctly the important and commonly used words they will need in order to function independently in most practical life situations. The use of various word lists will be helpful to teachers in making this determination. In addition to commonly used lists, such as those by Dolch—Garrard Press, Champaign, Illinois, there are specific word lists such as *A Functional Core Vocabulary for Slow Learners*, Robert Burger, P. O. Box 165, Rensselaer, New York, which will be of assistance to teachers in the development of the spelling program in the special class.

The methods for teaching spelling to the retarded, again, are similar to those employed in teaching spelling to all children. While basic spelling texts may not be useful in a special class without some adaptations, teachers will find them of great assistance in the development of a systematic approach to teaching spelling. In addition, these books will include a variety of practical exercises which teachers can adopt and/or adapt for use in the spelling program for the retarded.

In carrying out the spelling program for the retarded, teachers may wish to prepare their own spelling lists made up of some words from the regular spelling texts, together with appropriate words from the present unit work that is being carried on in the class at the time. In addition, many of the words from the reading program that are included in the teaching of certain word recognition skills can be incorporated in, and easily taught through, the spelling program.

The book, *Diagnosis and Treatment of Learning Difficulties*, includes specific suggestions which will be helpful to teachers in working with pupils who have difficulty in learning to spell.

F. Written Language

Most educable retarded persons will not use written language in adult life as extensively as will other persons. However, there are a number of occasions when they will need the skill, for example, in writing personal letters, making various lists of things to be remembered or filling out a variety of forms.

Some of the activities which can be carried on in the classroom to develop minimal independence in this skill are: Writing simple stories by individuals or by the class, answering comprehension questions from the daily reading program, writing thank you notes in follow-up of field trips, writing a daily or weekly classroom newspaper, and writing in relation to current unit activities.

Although formal grammar and detailed punctuation should not be included in the curriculum, the pupils should be taught simple sentence structure and elementary punctuation. For example, they should learn to write simple sentences, using capitals and periods or question marks. In the teaching of this "technical" skill, as well as in all parts of the written language program, every effort should be made to tie it into other activities in the daily program and to keep it as functional and meaningful as possible.

G. Arithmetic

Arithmetic, like reading, is generally considered to be a difficult but very important subject for educable retarded pupils to learn. However, most special class pupils can develop sufficient abilities in arithmetic by the time they leave school so that they can use it independently in most practical life situations.

Although retarded pupils will not use arithmetic as extensively as other people, they will nevertheless be confronted with daily situations involving the use of this skill, e.g., telling time, using money for making a variety of purchases or using simple measurements. Because it is a practical skill in daily living, teachers have a responsibility to help each pupil develop proficiency in arithmetic to the maximum of his potential.

1. Comparing the Arithmetic Program of Special and Regular Education

As in the case of most of the other subject areas, there are factors in the arithmetic program of the special class which are very similar to the arithmetic program of the regular grades and there are also some distinct differences between the two programs. Some of these factors are discussed below:

- a. *Similarities.* First, the arithmetic programs in special education and in the regular elementary grades are both concerned with two major, interrelated phases: (1) The mathematical phase, which deals with the learning of the actual number facts and computational processes, and (2) the social phase, which deals with the actual application of number skills in practical, realistic social situations.

Furthermore, the emphasis in the regular school arithmetic program is on teaching the skill in a meaningful way and on providing first-hand experiences which deal with the use of arithmetic in everyday situations so that students will see the value of what they are learning. This philosophy is certainly in keeping with the approach to teaching arithmetic that is recommended by most persons in special education.

In addition, the methods and techniques for teaching a specific skill or concepts, e.g., the basic facts or the fundamental processes, are essentially the same in both special and regular education. Teachers will find a book such as *Making Arithmetic Meaningful*¹⁰ to be an excellent reference in planning the arithmetic program of the special class. Written for elementary teachers, this is a basic arithmetic textbook which contains a wealth of practical suggestions for teaching in a meaningful and systematic manner the various mathematical concepts and processes.

- b. *Differences.* The differences between the arithmetic program of the special class and the regular grades center essentially on the outcomes of the program, the point at which various skills are taught, and the degree of emphasis placed on such skills. First, as in reading, the overall range of mathematical ability in the special class is considerably less than in the regular grades. Also, growth in arithmetic is much slower and considerably more time must be devoted to teaching each step, with a corresponding increase in the amount of practice that is necessary for most retarded students to learn each step.

In addition, the outcome or extent of vertical growth in the special class is much less than in the regular school program and as a result, the overall content is not as extensive. For example, by the time they leave school most retarded students will not go beyond the following general areas in the mathematical phase of the program: The four processes, some understanding of simple common fractions and a basic knowledge of elementary measurements.

Finally, a greater emphasis needs to be placed on the social phase of arithmetic—in its broadest application—than would be true or necessary in the arithmetic program of the regular grades.

- c. *Modern Mathematics.* The modern mathematics program has gained considerable prominence in the regular grades over the past few years. However, it is difficult at present to determine what impact this program will have on the teaching of arithmetic in the special class program. On the one hand, the new program focuses on developing meaning and seeing relationships between concepts and processes. In this sense, it might be very useful in special education. On the other hand, it also stresses the making of generalizations and inferences and such an approach may be beyond the grasp of most special class pupils. Teachers should attempt to keep abreast of this program during the next few years; and, as the program continues to develop and become more stabilized, it will be possible to assess its value for special education.

2. Stages in Arithmetic Instruction¹¹

In the development of arithmetic ability, special class pupils progress like those in the regular grades through a number of stages until maturity is reached. As in the case of reading, the initial stages are essentially the same in both regular and special education except for the necessity of prolonging each stage in working with the mentally retarded.

There is, however, very little similarity between the two programs in the later stages since the program for the retarded concentrates almost entirely on the practical application of skills learned earlier while in the regular grades there is continued upward growth.

The various stages in arithmetic instruction in the special class program cannot be sharply differentiated, and they merge gradually as parts of a continuous growth process. Also, all pupils in the special class will not progress through each stage at the same time or at the same rate. Because of this fact, several developmental stages may be represented in a given special class at any one time.

Following are the instructional stages which are most pertinent to an arithmetic program for special class pupils:

- a. *Readiness.* This stage corresponds essentially to the readiness program in reading; and for most retarded children, it covers the period through approximately the first half of the primary grades. However, some of the pupils will need continued readiness work beyond this point. This stage is as important in the teaching of arithmetic as it is in reading, for all children need a meaningful background before their formal number work begins.

At this stage number activities in the special class are similar to those in the preschool, kindergarten, and beginning first grade classes of the regular school program. For example, the program should include development of a variety of simple quantitative concepts, e.g., big-little, up-down, tall-short. Also there should be practice in counting and grouping of pupils and various objects and learning simple time concepts.

The pupils' work with numbers during this stage should be incidental to everything they do, but the activities should be carefully planned by the teacher and there should be a specific period for number work just as there is for reading.

Teachers who need assistance in developing a readiness program in arithmetic will find much help from a basic kindergarten guide and beginning arithmetic textbooks used in the regular grades. Also, a book such as *Guiding Beginners in Arithmetic*, Amy J. DeMay, Row Peterson & Company, contains many helpful and worthwhile suggestions. The development of readiness for number work, as in reading readiness, is not only an initial developmental stage through which all children go but it is an essential first step in the teaching of any new unit of work in arithmetic. Because there is a logical sequence in all aspects of arithmetic, each level should be well learned before proceeding to the next.

- b. *Initial Stage in Learning Arithmetic.* This stage may be reached at age eight or nine for most retarded pupils, but for some of the children in the special class it may not be attained until they enter the intermediate grades.

During this stage the students learn to count systematically, to group and compare objects, to read and write numbers, and continue developing an arithmetical vocabulary. Also, they begin learning the basic number facts of addition and subtraction and some simple fractional and basic measurement concepts.

By making each step as meaningful and practical as possible, and by providing well-chosen social activities involving simple applications of number in a variety of situations, teachers can help their students to acquire a rich background of meaning which will facilitate more formal learning at the next stage.

- c. *Increasing Efficiency in Arithmetic.* This stage usually begins at some point in the intermediate grades for most special class pupils, although some students may not reach this level until they are 12 or 13 years of age. The stage is generally continued throughout the junior high school program.

During this stage each pupil should be taken as far as his ability allows in the mathematical phase of arithmetic, including learning the basic number facts, the simpler processes with whole numbers, and

Adapted from *Making Arithmetic Meaningful*, by Leo L. Brueckner and Foster R. Grossnickie. pp. 110-111.

the meaning and use of simple common fractions and basic measurements. There also should be continued application of these concepts and skills in practical, everyday situations and through various unit activities.

- d. *Social Application.* This stage may begin at the upper part of the junior high school program for some students but it is essentially a finishing and rounding off stage that predominates throughout the senior high school special class program. Students will have had many experiences in the earlier grades involving the application of number concepts and skills in practical, everyday social situations. However, as they near the end of the formal academic phase of the curriculum, the arithmetic program should focus almost entirely on the practical application of the mathematical skills learned earlier and on the kinds of situations the pupils will face throughout their lives involving numbers.

The content and activities of the program at this stage should center on the practical uses of measurement such as the uses of money in banking, budgeting, wages, and the purchase of goods.

3. Teaching the Number Facts and the Four Processes

Most special class pupils have the ability to learn the basic facts and the simpler processes of addition, subtraction, multiplication, and division and they generally should be taken as far in these areas as they are capable of going. However, emphasis should be on the development of understanding and functional use of the skills rather than on simply learning the mechanical aspects. In other words, retarded pupils, like most pupils, must understand what they are doing if the concepts and skills they learn are to be of lasting value and practical usefulness.

Addition and subtraction should be introduced first, and the students should become fairly proficient in these processes before they are permitted to proceed to multiplication and division because (1) the ability to perform the latter processes effectively and with understanding is dependent, to some extent, upon a knowledge of the former, and (2) most of the computational needs of the adult retarded can be met through addition and subtraction and, therefore, the pupils should have thorough training in these two processes.

Most retarded pupils will have few occasions in adult life for doing complicated multiplication and long division problems. Therefore, these processes should be taught only to the more "advanced" students in the special class who have already mastered addition and subtraction and the other computation skills which they will need in adult life. In the teaching of the fundamental processes, especially in addition and subtraction, every effort should be made to insure that each pupil not only learns the basic facts from the standpoint of understanding and immediate recall but, also, that he learns the processes to the extent that he can use them appropriately, independently, and with understanding. In order to accomplish this teachers must present number skills and concepts in a meaningful, systematic manner and must provide ample experiences for practical application of the skills learned.

The specific steps and methods used in teaching the processes are essentially the same in both special and regular education. For example, in teaching a basic number fact, a definite sequence of steps should be followed, proceeding from the simplest level—the manipulation of various concrete objects—through several intermediate steps involving semi-concrete materials and finally, to the most abstract level—the written fact itself.

These steps cannot all be covered during one brief period, especially with younger pupils, nor can a process be taught once and for all. In other words, systematic instruction must be spread out and ample opportunity must be provided for meaningful practice of each new fact or unit of number work that has been taught.

Teachers who are not familiar with the steps involved in the teaching of the fundamental processes should refer to references such as those included under G—Arithmetic, 1. Comparing the Arithmetic Program of Special and Regular Education; 2. Stages in Arithmetic Instruction.

- a. *Using Instructional Aids.* Manipulative and objective types of materials are very useful in making number operations meaningful to students and, because of this, they play a vital role in the arithmetic programs of both regular and special education

Experiments have shown that pupils who use such aids as an intermediate learning step achieve higher scores in arithmetic than those who do not. The value of these materials lies in the fact that

they help pupils to visualize the fact or skill which they are learning and thus bring meaning to an otherwise abstract process.

Some of the most commonly used learning aids are: (1) Tickets or sticks which are useful in showing groupings and regroupings of ones, tens, and hundreds, (2) Place value charts which show the meaning of place value in whole numbers and decimals and help to visualize various number operations, and (3) Money, which not only is one of the most concrete means of expressing numbers, but which also has direct transfer to the social phase of arithmetic and to everyday situations involving money.

Generally, pupils should not be permitted to use an instructional aid after its usefulness has been outgrown. In other words, the learning aid should not be used to the extent that it becomes a crutch since it may impede the students' growth and future independence in number work.

There may be occasions, however, where a pupil has so little understanding of number concepts that he must be taught or allowed to use a crutch, such as counting on his fingers, at least as an initial step in teaching him the addition facts. This is most likely to occur when an older pupil transfers to the special class after many years of failure in the regular grades. By teaching him to use a crutch, the pupil is able to achieve a degree of independence in number work from the outset and has a method upon which he can rely in the future for checking his memory of certain combinations. Almost all students can be "weaned" away from relying on a crutch when they are shown that it reduced their independence in the day to day use of numbers in practical life situations. However, this generally should be done gradually and, in certain instances, it should not be done at all, e.g., when it is clear that the use of a crutch will make the difference between a pupil having slow but accurate computational skills as opposed to having no number abilities at all.

- b. *Using Number Facts Tests.* Basic facts tests serve an important function in the teaching of the combinations and should be included as an integral part of the special class arithmetic program. The tests not only give an indication of the students' knowledge of the facts and show progress over a given period of time, but also they can serve as a learning aid and motivational device in the ongoing program of instruction in the combinations.

Teachers may wish to give the tests in two different ways: (1) Without time limits and (2) on a controlled basis. The purpose of the first approach is to determine the students' ability to arrive at the correct answers on their own and through any means available to them.

The second approach, which is recommended by Brueckner and Bond,¹² involves measuring the pupils' memory of the facts and their ability for immediate recall. The students are given a copy of the test, as in the first approach, but the teacher controls the speed of the pupils by dictating the test to them at the rate of one combination every three to five seconds.

Some teachers have found it to be very effective to use these tests on a weekly basis. If done appropriately by the teacher, the use of such tests in the ongoing arithmetic program can capture the enthusiasm of the students for they can see the progress they are making and know exactly where they stand in relation to learning a particular set of combinations. It sometimes is effective to have each student plot his own growth in the combinations on a simple chart. However, in so doing, each pupil should compete only with himself.

The proper use of basic facts tests which involves a "test-teach-retest" approach to instruction, is a useful, essential aid in the systematic teaching of the combinations to all students, including those who are mentally retarded.

4. Measurements

The teaching of basic measurements which will be of value to special class pupils throughout their lives should be included at all stages of the arithmetic program. The pupils should learn common terms relating to such areas of measurement as time, weight, length, and volume, and should learn to use the appropriate measuring devices involved. Items such as rules, yardsticks, bottles of various sizes, and measuring cups should be standard equipment in the special class program.

There are many opportunities for making the learning of measurements meaningful to the students, and measurement also provides an excellent opportunity for using the "learn by doing" approach to teaching, especially in unit activities. With the various devices available, the students can actually use measure-

ments in real projects, e.g., in building various projects, in cooking, or in planning and putting on a party for the class or for parents.

Money not only is useful as an instructional aid, it also is an important learning area in itself. Students should learn common signs for dollars and cents, how to make change; and they should be given opportunities for making actual purchases at supermarkets or department stores. In the final stage of the arithmetic program, the pupils should learn about money in relation to wages, budgeting, and making various purchases. There are many situations in school involving the use of money and teachers should capitalize on those instances for practical lessons and examples.

5. Fractions

The ability to understand and use simple common fractions is as important for the mentally retarded as it is for others because there are daily situations involving fractions which most people encounter, e.g., in cooking, in the use of money, in sewing, or in the use of various other measurements. This ability is within the grasp of most educable retarded students and fractions, therefore, should be included in the arithmetic program of the special class.

There are many aids and devices for teaching common fractions, including charts, cutouts, blocks or measures such as half gallon containers. Again, money provides an excellent means for getting across the general concept of fractions and for teaching such specific values as one-half or one-fourth. Whenever possible, fractions should be taught in relation to everyday situations which will bring meaning to the learning of them.

There may be some occasions in the later stages of the special class program when it might be justifiable to teach addition and subtraction of common fractions to some of the pupils but the teaching of multiplication and division should be limited only to the more advanced students. Even for these students, however, the teachers' time might be more profitably spent on providing a breadth of meaningful experiences involving the few fractions which will be useful to the students throughout their lives, rather than attempting to teach them skills which are beyond their needs, interests, and abilities.

Decimal fractions should be taught primarily in relation to money, e.g., the pupils should learn that cents are always to the right of the decimal point and dollars to the left. Addition and subtraction of decimals are no more difficult than addition and subtraction of whole numbers and because of their functional value, especially in relation to situations involving money, these two processes should be included in the special class program.

As in the case of whole numbers, multiplication and division of decimals are more difficult and have less functional value for the mentally retarded than do addition and subtraction. If these two processes are to be included at all in the curriculum, they should be taught only to the more able students who have already mastered the other, more functional skills. Also, only the simpler steps should be presented, e.g., multiplying a decimal by a whole number, or the reverse process, and dividing a decimal, usually dollars and cents, by a whole number.

6. Problem Solving

Practical arithmetic problems presented in both oral and written form have an important place in the special class curriculum because they not only provide another avenue for meaningful practice of specific number skills which are currently being taught but, also, they help students develop skill in selecting the appropriate process to use in solving problems.

The problems which are presented, especially those in written form, should be: (a) realistic in content, (b) stated simply and directly, (c) based on number skills which the pupils currently know, and (d) kept within the reading vocabulary of the students.

Teachers also should include an abundance of problem solving situations in the various unit activities and should take advantage of the daily, practical life situations involving numbers for incidental reinforcement of the students' problem solving abilities.

7. Using Arithmetic Tests

Special teachers should have a testing program in arithmetic just as they do in reading. Testing the pupils at the beginning of the school year helps teachers to determine the content of the arithmetic program for the year and to group the pupils according to their indicated abilities in arithmetic.

The same tests given in September or an adapted version should be given periodically in order to measure the students' progress over a given period of time. Also, as indicated earlier, some of these tests can serve as instructional aids and motivational devices when they are used appropriately and on an on-going basis.

- a. *Standardized Tests.* There are a number of different standardized arithmetic tests which may be used with special class pupils, e.g., the *Stanford Arithmetic Tests*, World Book Company, which include a primary test for grades two and three and an elementary test for grades four through six.

Teachers may prefer using some of the various survey, screening, and diagnostic tests developed by L. J. Brueckner, California Test Bureau. There are also a number of readiness tests available, including beginning readiness tests and those designed to measure strengths and weaknesses in each of the processes. One of these tests is *Readiness Tests in Primary Arithmetic (Mathematical Phase)*, devised by Brueckner and is included in the reference list.

- b. *Teacher-made Tests.* Teachers should use informal tests as a supplement to the standardized testing program.

In addition to giving basic facts tests, see G, 3b, teachers also should prepare a test on common measurements including such items as number of inches in a foot, feet in a yard, ounces in a cup, pints in a quart, and time of day shown on the classroom clock. A test on the fundamental processes also should be included. Some of the arithmetic textbooks used in the regular grades contain appropriate tests which can be used verbatim or with minor adaptations to fit the needs and abilities of the particular group of students.

If an appropriate test is not included in the textbooks, teachers will find it helpful to use the text or one of the sources listed earlier in this section as a guide in preparing their own tests. It is important to use an appropriate reference in developing such tests in order to insure that all specific computational steps will be included.

8. Remedial Work in Arithmetic

As in reading, there may be some pupils who function far enough below their indicated potential in arithmetic so that they will require remedial instruction. Generally, these will be older students who are placed in the special class at the end of the intermediate grades or beginning junior high school program.

The students' problems in arithmetic will frequently stem from a lack of knowledge of the basic combinations. That is, they will not know the facts from a recall standpoint or they will have no effective crutch to fall back on. Some students also will have specific weaknesses in one or more steps in the processes, such as carrying in addition or borrowing in subtraction.

Once the weaknesses of the students have been found, they should be taken back to the point where they know and understand the material and then brought forward from that point on a gradual, meaningful, and systematic basis.

Occasionally a student will be placed in the special class who has a mechanical knowledge of the processes but apparently lacks the ability to use the processes independently and has no basic understanding of numbers.

Such pupils should be taken back to the beginning stages of arithmetic instruction with almost all emphasis in the program being on teaching the meaning of the facts and processes. In working various exercises the students should be made to show their answers through a variety of concrete and semi-concrete devices and materials. Every effort should be made to insure that these pupils have ample opportunities for the practical application of arithmetic in a variety of meaningful social situations.

Specific suggestions to follow in working with pupils who need remedial instruction in arithmetic are included in books such as *The Diagnosis and Treatment of Learning Difficulties*.¹³

9. Using Arithmetic Textbooks

Special teachers may find it necessary to determine the specific content in arithmetic that is to be covered with each pupil or group of children in the special class and to make up their own daily assignments rather than following the recommended program in a regular set of arithmetic textbooks.

Brueckner. See bibliography.

While this is true, such texts, nevertheless, will be useful to special teachers because they contain many suggestions and exercises which will be helpful in working with special class students. Also, there will be occasions when a group of pupils can be given a specific assignment from a particular basic arithmetic series. For these reasons, teachers will find it worthwhile to have sets of several different arithmetic texts in their special classes.

10. Selected List of Arithmetic Materials

The various references and sources included in this section should be very helpful to teachers in developing and carrying out an arithmetic program in their special classes. Listed below are some additional items which teachers may wish to secure for their classes. Again, all such materials are reimbursable under the special education laws at the rate of one-half of the cost of the materials, not to exceed \$50.00 per pupil per year in reimbursement.

Ambrose, Mary N. *The Happy Way to Numbers*, Winston, Chicago.

"Large, simple figures in a workbook suitable for brain-injured children. Excellent for a readiness program."¹⁴

Continental Press. *Special Education Catalogue*. Elizabethtown, Pennsylvania. Primary level material ready for duplicating. Each set \$3.20

Lawson, Gary D. *Every Day Business*. 9488 Sara Street, Elk Grove, California.

Includes work on banking, buying, income tax, insurance, and budgeting. Secondary level. \$1.50 each if ten or more copies are ordered.

Kahn, Charles H., and Hanna, J. Bradley. *Money Makes Sense*. \$2.00. Junior and senior high educable.

Kahn, Charles H., and Hanna, J. Bradley. *Using Dollars and Sense*. \$2.00. Fearon Publishers, Inc. 828 Valencia Street, San Francisco 10, California. Junior and senior high educable.

From *A Curriculum Guide for Teachers of the Educable Mentally Handicapped*, See Bibliography, which contains a more detailed list of arithmetic materials.

XII

TEACHING THE BROAD SOCIAL STUDIES

Social studies, or the science of learning to live with people, pervades the entire program for the mentally retarded and is the center of interest around which the rest of the special class program revolves.

Most state and local curriculum guides that have been developed give major emphasis to the teaching of the broad social studies. Although the terminology differs considerably from guide to guide, e.g., persisting life situations, areas of living or life functions, it is clear in reviewing the guides that (1) there is a great deal of similarity in the content included under these various headings and (2) the unit method of teaching is the one that is most frequently advocated for the teaching of this part of the curriculum.

The unit approach to teaching the broad social studies is generally considered to be the best medium through which the special class student can be prepared for independent living. In teaching this very important area of the curriculum, teachers should be concerned with providing practical, directed learning experiences which (1) develop personal attributes, skills, and attitudes needed to live in a social community, (2) focus on problems of choosing, getting and holding a job and (3) provide ample opportunities for meaningful and practical application of the basic skills.

Most teachers who have had experience in working with retarded children will readily admit that the teaching of the broad social studies, especially when using a unit approach, is one of the most difficult tasks to accomplish in the entire curriculum. Compounding this task is the fact that although similarity exists in the various state and local guides, there is at present no one specifically prescribed social studies curriculum nor is there a definite list of units, all of which should be taught. This means that within a general frame of reference each teacher must determine for himself which specific topics to include in developing his own social studies program.

This section attempts to provide a framework which will assist the teacher in developing this area of the curriculum. It presents some ideas regarding the composition of a social studies program and includes specific references which will be useful to teachers in developing a program that is geared to the unique needs of their own particular communities.

A. Place of Traditional Social Studies in the Special Class Curriculum

Some aspects of the traditional social studies curriculum, i. e., history, civics, and geography, are routinely included in most special class curricula and also are included in some of the suggested units in part B, following. However, there often is a tendency in special class teaching to focus the social studies part of the curriculum entirely on such areas as the local community and choosing, getting, and holding a job.

Although these areas should receive primary attention, this should not be done to the exclusion of other more traditional areas. Retarded children should be exposed to current events at the national, state, and local levels, and they should have at least some knowledge of the history of our country and of the more common traditions.

There also are certain kinds of basic information and general facts which these pupils should learn—information which has little apparent practical value but which nevertheless gives a person a sense of being "in the know" along with the rest of mankind.¹⁵ While a knowledge of these facts will not necessarily help the retarded student to secure a job, it may help to keep him a part of, rather than apart from, the mainstream. For example, if a retarded young adult has no idea who the current president of the United States is or where the federal Capitol is located, his ignorance in this respect could do a great deal to set him apart from his fellow workers.

Most of these common and historical facts can either be tied in with some other unit or can be taught through a separate unit on a particular topic. The main points to remember, however, are that (1) this kind of information should be included in the special class curriculum, (2) it should be presented in a meaningful way and, whenever possible, it should be taught through a unit or topic approach, and (3) the presentation of this information should not consume a disproportionate amount of time in the social studies program.

W. B. Featherstone, *Teaching the Slow Learner*, Teachers College, Columbia University, New York, 1951. p. 40.

B. Some Suggested Units¹⁶

The following units are presented to give some idea of the kinds of topics in the broad social studies which should be included at each instructional level in the Special Education Program. However, these lists are by no means exhaustive nor are they meant to limit or restrict the teacher in any way. Some of the curriculum guides listed under Section C following will include fully developed units on some of the topics given below.

(1) UNITS FOR PRIMARY CLASSES

Home and Family Units

The Family as a Group
Our Home
Mother's Work
Common Objects in the Home
The Holidays

Transportation Units

Travel in our Neighborhood
Going Downtown
Travel by Bus, Car, Plane

Food, Clothing and Shelter Units

The Farm
The Dairy
Seasonal Foods and Clothing
Shopping for Food and Clothing
The Clothes We Wear; Their Care and Repair
Kinds of Homes in our Neighborhood
Building a House

Neighborhood and Community Units

People who Live in our Neighborhood
Being Good Citizens in the Neighborhood
Community Services—drugstore, gas station,
post office, grocery store, library

Community Workers and Helpers—fireman,
doctor, policeman
Safety in the Neighborhood

School Units

Things we Should Know About our School
Rules We Live By
How We Come to School
A Classroom Party

(2) UNITS FOR THE INTERMEDIATE GRADES

Home and Family Units

How Homes are Built
Heating and Lighting our Homes
Decorating and Furnishing a Room
The Purchase of Groceries
Preparing Simple Meals
The Family's Recreation

Obligations of Family Members Beginning Babysitting

Sewing and Cooking Activities

Food Units

Fruits and Vegetables
Milk and its Products
The Story of Grains
The Common Meats
How We get Food in our Community
The Seven Basic Foods
Good Nutrition and Health
How our Body Functions

Clothing Units

What our Clothes are Made of
Keeping Clothes Clean and Mended
Personal Grooming
Clothes for Each Season

Units of City Life

Police Departments
Sources of Recreation—Parks, Sports,
Theaters, Music
Banking and Thrift
City Industries
Keeping our City Healthy—Health Bureau,
Hospitals, Sewage Disposal, Water Supply
Transportation of Goods into and out of our City

(3) UNITS FOR JUNIOR HIGH SCHOOL CLASSES

Homemaking and Family Life Units

Improving our Classroom and our School
Care of the Sick
Child Care and Babysitting Techniques
First Aid in the Home
Home Arts—as supplement to regular Home
Economics Program
Home Mechanics
Consumer Values
Housing in our City

Physical and Mental Health Units

Appropriate Clothing and Make-up
Care of Person and Clothing
Problems of Puberty
Nutrition and Balanced Diets
Our City and Its Health

Recreational Units

Ways of Using my Leisure Time Wisely
Recreational Facilities in the Area
Dating
Places of Interest in our City

Adapted from *Suggested Centers of Interest for Mentally Retarded Children in Wisconsin*, Bureau for Handicapped Children, State Department of Public Instruction, Madison, Wisconsin, 1963.

The City

Early City History
Our City's Geography as it Relates to Us
The People in our City
How our City Gets its Food
The Government of our City
The Schools in our City
Transportation in our City

Occupational Units

Various Occupations in our Community
Industries in our City
The Kinds of Work I am Interested in
My Abilities and Limitations
Ways of Seeking and Holding a Job
Employment Office Procedures
Habits and Attitudes toward Work

(4) UNITS FOR SENIOR HIGH SCHOOL CLASSES

Homemaking and Family Life Units

Getting Along with my Family
Obligations of Family Life
Responsibilities of Parenthood
Child Care and Development
Home Management
Banking and Saving
Budgeting One's Income for Food, Clothing
and Other Needs
Installment Buying
Insurance and Social Security
Paying One's Income Tax
Unemployment Benefits
Financial Hazards—rackets, for example
Consumer Education
Family Obligations to the Community
Driver Education—being a safe driver

Occupational Education Units

Survey of Local Industries, including field trips
The Worker on the Job
Skills and Assets Needed
Labor Unions
Guarding Against Accidents
Hours, Wages, and Deductions
Driver Education
Work Experiences
In-School Employment Activities
Evaluation of Work Experiences
Ways of Improving Job Skills
Selection of an Occupation
Vocational Rehabilitation Services
Ways of Improving Myself after Leaving School

Physical and Mental Health Units

Personal Responsibility for Health,
Appearance, Grooming
What is Good Mental Health?
Getting Along with the Boss and
Fellow Workers
Common Adult Courtesies
Concept of Sanitation and Hygiene
Good Use of Leisure Time
How We Get our Beliefs
Making and Holding Friends
Where Do I Seek Help?

Citizenship and Social Relations

Voting Procedures
Local, State, and Federal Government
Local and State History
Boy-Girl Relationships
Races, Religions, and Class Groups
Community Agencies and Services
Community Recreation
Conservation of our Natural Resources
Getting Along in the Community—rural area,
village, city
Responsibilities as a Citizen of the City,
State, and Nation

Selected List of Curriculum Materials

Following is a selected list of curriculum guides and resource materials which will be helpful to teachers in developing and carrying out a program in the broad social studies. Additional references are included in the Appendix. Each of the guides included in this list covers the curriculum from a slightly different point of view. Also, many of the guides include detailed information on units and unit teaching.

Because the Minnesota Resource Guide provides only a frame of reference, especially in the broad social studies and is intended only as a resource, these other curriculum guides are an important supplement to it. Teachers are encouraged to purchase as many of these items as possible and to obtain others not listed below. School districts will be reimbursed by the state for all such materials at the rate of one-half of the cost of the items purchased, not to exceed \$50.00 per child per year in reimbursement.

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United States Department of Health, Education and Welfare, *Curriculum Adjustments for the Mentally Retarded*, Bulletin 1950, No. 2, United States Government Printing Office, Washington 25, D. C.

Resource Materials

Carson, Esther (Mrs.). *Teenagers Prepare for Work*. 18623 Lake Chabot Road, Castro Valley, California. Books I-II, \$1.75 each if ten or more copies are ordered, \$1.85 for single copies.

D. Van Nostrand Company. *Household Mechanics*. 120 Alexander Street, Princeton, New Jersey, \$2.75 per copy. Resource for Teacher.

Finney Company. *Finding Your Job*. 3350 Gorham Avenue, Minneapolis, Minnesota, five units—each unit contains five volumes, with 12 monographs in each volume at \$20.50 per unit.

Rand McNally and Company. *Our Country's Story*. 405 Park Avenue, New York, New York. About third grade level, \$2.95 per copy.

MacMillan Company. *Your Land and Mine*. 60 Fifth Avenue, New York 11, New York. Democracy Series—Third Grade.

School Library Service Company. *Foundations of Citizenship*. Frank Richards, Publisher, Phoenix, New York. Book 1 and 2—social studies books with accompanying teacher's manuals, based on occupation education curriculum. Sample content areas: The Family, The Community, How to Hold a Job.

Tripp, Fern. *I Want a Driver's License*. Dinuba, California. \$1.25 per copy. Excellent guide for teachers; may be adapted to conform to local law.

XIII

TEACHING THE OTHER SUBJECT AREAS

A. Science

Since so much of what occurs in life is either directly or indirectly related to science, it not only is essential that science be included in the special class curriculum but, also, it would be all but impossible for a teacher to avoid covering some aspect of it in the daily program of the special class.

1. Science in the Elementary Grades

In the teaching of science to special class pupils, especially in the elementary grades, teachers will find it helpful to incorporate some of the science topics within the broad social studies units rather than teaching science as a separate subject. For example, units on such topics as health, food, clothing, and transportation are obviously related to the area of science, and it likely would prove more meaningful to students if the science aspects were taught in connection with the unit work rather than as isolated topics.

There are some facets of science, however, which should be included in the special class curriculum even though they may not necessarily relate to a particular social studies unit, e.g., growing plants in the classroom, teaching simple concepts of astronomy and space travel, or presenting a unit on the care and feeding of pets.

In developing a science program in the special class, special teachers will find it helpful to secure copies of some of the basic science textbooks for elementary pupils. Also, books on science from sources such as the following are considered to be excellent for use with special class students: *The Golden Books*, Simon Shuster Company and *The True Books*, Children's Press.¹

2. Science at the Secondary Level

As in the elementary special class program, science topics at the secondary level are generally included as an integral part of the unit activities in the broad social studies. Many teachers also include specific units on science or cover timely science topics as part of the newspaper reading period, e.g., space news, new inventions, noteworthy personality, and so on.

Generally, the regular secondary school science programs will be too difficult for most retarded students. However, there are some special class pupils who have the ability to participate in and benefit from the regular seventh and eighth grade science programs and should be given the opportunity to enroll in these classes. Also, where districts have other science classes that are designed specifically for slow learning students, some of the retarded population can be accommodated in these classes.

The success of this approach is dependent to a considerable extent upon the attitudes and capabilities of the individual science teacher. Experience has shown that where science teachers are willing for some of the retarded pupils to enroll in their classes, the students generally profit greatly from such instruction for they not only learn considerably more about science than could possibly be taught by the special teacher, but the students have one more contact with other pupils outside of the special class setting.

The special teacher should work closely with the science teachers in his building, not only in terms of problems relating to integration of some of the special pupils but, also, to seek advice and assistance from the teachers in developing and presenting certain science topics in the special class setting.

B. Fine Arts

The fine arts, including art, music, and crafts, have a place in the curriculum for special class pupils. These areas not only provide a means of self-expression, appreciation, and enjoyment, but they also furnish excellent opportunities for correlation with other areas of the curriculum.

1. Fine Arts in the Elementary Grades

The music and art programs in the elementary special class should be essentially the same as those in the regular grades in terms of methods and materials. If there is a supervisor of music or art in the school system, his services should be available to special class pupils, either directly or indirectly through consultation with the special teacher in helping him to develop a fine arts program in the special class which will be comparable to the program in the regular grades.

The Illinois Guide includes a detailed list of source materials in science. See Bibliography, Curriculum Guides in previous chapter.

If there are no supervisors in the fine arts, special teachers should use the same source materials available to regular teachers in developing and carrying out a program in art and music. Examples of such sources are: (1) Standard texts in art for use by elementary teachers such as *Teaching Art in the Elementary School*, Rinehart and Company and (2) basic graded music series such as *Our Singing World*, Ginn and Company, which includes various types of songs and a manual and recordings to assist teachers.

- a. *Music*. In the teaching of music at the elementary level there should be opportunities not only for rhythms, singing, and expression, but time should be devoted to listening and developing appreciation of music as well as for dramatization of certain musical pieces through pantomime, games, or dances. Although only a few of the special students will have either the interest or ability in instrumental music, those who do generally should be encouraged in their pursuits.

There may be occasions when it will be worthwhile to arrange for some or all of the elementary special class students to receive their music instruction in a regular class, either on an ongoing basis or for special events. However, since most elementary classes are organized on a self-contained basis, integration at this level might make the pupils more conspicuous and uncomfortable than if their music instruction were provided in the special class. Thus, the decision to integrate should be based on a number of factors, including the abilities and interests of the students and the organization of the music program in the elementary school.

- b. *Arts and Crafts*. As in the regular grades, the art program of the special class should provide opportunities for self-expression through such activities as finger painting and modeling with clay, and it should also include opportunities for construction of various kinds of materials, e.g., simple gifts or playthings. In addition, much of the unit work in the broad social studies should include activities such as drawing, coloring, or making objects of paper mache.

2. Fine Arts at the Secondary Level

Whenever possible, special class pupils should be given the opportunity to enroll in the regular secondary school classes in music and art, especially in the general fine arts classes at the junior high school level. While some of the students may have unusual difficulties with the technical aspects of these subjects, for example, notes in music or design in art, it generally will not be necessary to modify the programs in any other way for most of the students. At the senior high school level the pupils should be guided carefully in the selection of elective classes in these areas.

C. Practical Arts

The practical arts program for special class students, as described in most curriculum guides for teachers of the mentally retarded, includes not only industrial arts and home economics as they are usually considered in the regular secondary school but also home and manual arts in the sense of developing practical skills needed in the home situation.

Some specific areas that are usually included in the practical arts program are: Housekeeping—washing, ironing, cooking, and sewing, personal grooming, home maintenance, purchasing of groceries, child care, and care of sick persons in the home. It is obvious that many of these areas and activities cut across several other curriculum areas, including the broad social studies, health, and arithmetic, as well as certain aspects of the regular home economics and industrial arts programs.

In the elementary special classes, the practical arts are usually taught in relation to unit activities rather than as separate subjects, although some teachers at the intermediate level might include specific training for some of the older pupils in areas such as sewing, cooking, and the use of hand tools. While many of the students will enroll in regular industrial arts and home economics classes at the secondary level, the practical arts, nevertheless, continue to be included in the special class program as an integral part of the unit work in the broad social studies.

D. Home Economics and Industrial Arts

Special class pupils at the secondary level should be given the opportunity for instruction in industrial arts and home economics by persons trained in these areas; and, whenever possible, such instruction should be provided along with other students in school, especially in the general practical arts classes at the junior high school level.²

²See section on integration of pupils into regular classes, Chapter V.

There are some situations, however, where crowded conditions limit the amount of participation of the special class pupils because the practical arts teachers do not have time to provide the degree of assistance some of these students need. As a result, there are instances where students have become sideline observers in the practical arts classes rather than being active participants.

There are also some retarded students who are unable to be accommodated in the regular practical arts classes. Generally, these are the pupils who are at the lower end of the continuum in intellectual abilities or those who have multiple handicaps. Whatever the cause or reason, the students' disabilities are generally severe enough so that their participation in the various activities of the practical arts programs are not only quite limited but the students also require an inordinate amount of the teachers' time.

Unfortunately, there are no clear-cut answers to these problems and, in the final analysis, a variety of approaches may be needed in order to effect a solution, e.g., the use of the "buddy system" for some of the students enrolled in the regular practical arts programs or the establishment of supplementary or auxiliary types of programs through special reimbursement aids.

School districts may wish to contact the Special Education Section for assistance in these situations. Since the section's staff will be aware of the various approaches being tried throughout the state, it may be able, together with local district personnel, to arrive at a satisfactory solution. While practical arts teachers are far too many instances where students are excluded not because they do not have the ability but because of the attitudes of practical arts teachers toward such students. In the process of effecting a total solution, this also is an area which must be considered and corrected.

E. Physical Education

Although the mentally retarded as a group may be somewhat below average in general motor abilities and coordination, this discrepancy is not unusually pronounced, and most special class pupils can perform and participate in various physical activities sufficiently well so that they should not be singled out from other students in school who are the same age.

1. Physical Education in the Elementary Grades

Generally, the administrative organization of the physical education program which is designed for the elementary grades should prevail for the special class program as well. Thus, if there is a physical education instructor for the elementary school, his services should be available to students in the special class as well as those in the regular grades. On the other hand, if there is not a physical education instructor, special teachers would be expected to plan and carry out their own physical education program just as the rest of the elementary school staff is expected to do.

- a. *Integration of Pupils.* The question of whether it is better to work with the special class students separately or to assign them to regular classes during the physical education period cannot be answered categorically. Generally, retarded pupils should be with other students in school whenever possible, especially in an area such as physical education where they are more nearly on a par physically with their chronological age mates. On the other hand, since elementary classes are organized on a self-contained basis, it is possible that the special class pupils would be more uncomfortable and conspicuous if they were integrated than if they had their physical education program on a separate basis.

Some districts have found it worth-while to arrange for the older, more able students in the elementary program to be assigned to regular classes for physical education while the rest of the special class receive their physical education from the special teacher. Under this arrangement the physical education instructor should work with the special teacher in helping him to develop a well-rounded program of games and physical activities. If there is no physical education instruction, the special teacher should attempt to work with the regular teacher who has his students for physical education or offer some type of reciprocal assistance.

Whichever approach is followed in a particular school, it should be one that is the best for the children, rather than being the one which is feasible administratively.

- b. *Resources.* The Department of Education is in the process of developing a guide for elementary teachers entitled *A Guide for Instruction in Physical Education*, Grades K-6. This guide should be extremely helpful to all elementary teachers. There also are many standard texts such as *Methods and Materials*

in Elementary Physical Education, which will be of assistance to teachers in developing a physical education program for special class students.

2. Physical Education in the Secondary Schools

Most special class pupils have the ability to participate in the regular physical education program at the secondary level and should be assigned to such classes according to the regular grade in which they normally would be placed. Since the majority of the pupils are essentially normal physically, there is no particular reason to bring the pupils to the attention of the physical education instructor.

If it is apparent, however, that written assignments involved in the health classes will be beyond the abilities of some of the special students, teachers have a responsibility to inform the physical education instructor of abilities and disabilities of the students. This would also apply when it is obvious that a particular student will have difficulty following directions.

3. An Adapted Program

Although the majority of the special class population can participate successfully in the regular physical education program, there will be some students who will be unable to do so, either because of pronounced motor or coordination problems or because of other handicaps.

It is extremely important that such pupils be brought to the attention of the physical education instructors. These pupils should not be excluded from the regular physical education program if at all possible and should be given the opportunity to be more than mere spectators. This is no easy task since some adaptations in the program will be necessary. Special teachers should offer whatever assistance they can give to the physical education instructors and if possible, the size of the physical education should be reduced during the periods when these particular students are enrolled.

When there are a number of students who apparently are unable to be accommodated in the regular physical education program, the district should contact the Special Education Section, or the consultant staff in physical education in the Department of Education regarding the possibility of establishing an adapted physical education program or some other suitable plan.

Edwina Jones, Edna Morgan, and Gladys Stevens, rev. ed. Harcourt.

XIV

SCHEDULING, EVALUATING, AND REPORTING PUPIL PROGRESS, AND GRADUATION

A. Scheduling

An essential step in planning the special class program for the year is to set up a schedule of activities to be followed on a daily basis. Schedules are important in both regular and special education classes, but in the special class there is a much greater need for flexibility in the daily program than is true in the regular grades. In other words, schedules are not set up to dominate the classroom but rather, they are one of the guides with which teachers achieve a smoothly running, effective classroom program.

Following are some points which may be helpful to teachers in setting up a daily schedule:

1. The time when the class day begins and ends and the length of recesses and lunch periods generally must conform to the requirements of the building in which the special class is housed.
2. In most other respects the special class schedule also should be as similar to that of the regular class program as possible. For example, in the elementary grades there should be a "sharing" period in the special as well as in regular programs, and the lengths of the various periods should approximate those in regular grades. This similarity between the two programs will not only make integration easier but also will help to make the special class more like the other classes in school.
3. There generally should be a period each day for arithmetic, the broad social studies, reading, and the other language arts areas. The scheduling and teaching of the other subjects, e.g., science, fine arts, practical arts, and physical education should correspond, insofar as possible, to the program of the regular grades.
4. The names or titles of the classroom activities should correspond with those of the regular grades, when appropriate, especially at the secondary level. For example, if there is an English-social studies block of time in the regular junior high school program, there should be a corresponding "English-social studies" period in the special class, even though the actual activities might be developmental reading, spelling, and unit work in the broad social studies.
5. At the secondary level it may prove more beneficial to the special class pupils if they are enrolled in regular classes for the home-room period rather than in the special class. Although the students will receive the same amount of instruction from the special teacher under this arrangement, they nevertheless tend to be identified with the regular grades rather than with the special class.

The special teacher also might be assigned the responsibility for a regular class group during the home-room period. In this way he not only has an opportunity to have contact with other students in school but this will result in his being thought of as another teacher on the staff rather than as "the special teacher." This also aids in helping to make the program and the pupils more acceptable in the general school setting.

6. There generally should be a brief period set aside several times a week, preferably every day, when the pupils have the opportunity to listen to a "good" story read by the teacher, or to a recording, for purposes of relaxation and pure enjoyment. This "quiet" period should be extended at least into the junior high school program.
7. Within the framework of the schedule there should be considerable flexibility in order to accommodate to the needs of the pupils and to allow for emergency situations and special events.

B. Evaluating Pupil Progress

Evaluation is an essential first step in the process of reporting to parents on the progress their children are making in the special class program. However, it is not a periodic activity that is conducted only before progress reports are to be made to parents, but rather, it is a continuous process which touches on every aspect of the special class curriculum. Evaluation generally involves a number of steps:

1. Establishing the goals to be attained by each of the pupils in the class.
2. Determining the current status of the pupils in relation to the goals.

3. Providing an appropriate instructional program that is in keeping with the general objectives of the special class and with the needs and abilities of the individual students.
4. Evaluating the pupils on an ongoing basis to determine the progress they are making toward attainment of the goals. This includes not only testing each pupil's progress in the basic skills area and in unit activities, but also observing the student's behavior in all phases of the school program.
5. Collecting and recording information on each pupil.
6. Reporting to parents on the progress of their child through a variety of reporting procedures.

Student Participation

The students themselves should have a part in the evaluating process, i.e., they should know that specific goals are to be attained and should have some ideas of how well they are achieving these goals. As part of the ongoing evaluation of the pupils, they may be helped to prepare simple charts and graphs for recording their own work. These are useful in indicating to the student his own achievement and in encouraging him to compete with his own record. The charts and graphs also will be meaningful when interpreting the child's progress to his parents.

Collecting and Recording Information

Reporting progress of the retarded child involves acquiring and recording pertinent facts concerning his physical, social, emotional, and educational development. A record of such development in terms of the pupil's own capacity to achieve objectives is the most important consideration. This information may be kept on a cumulative record card so that the pattern of growth may be readily determined. Such cards may be kept in each pupil's folder together with other records.

Besides the cards which usually contain such information as family data, test scores, and health records, it is well to keep a *current report sheet* for each pupil. This may include a brief record of activities, interests, and learnings of the individual child which might be significant in his total growth pattern. Samples of the child's work, teacher-prepared check lists and outlines of skill development in the various subject areas and activities should also be kept in the cumulative folder for each child. Only on the basis of accurate information about a pupil gathered from a variety of sources and by a variety of methods can an intelligent report be made to parents of a pupil's progress. The value of this report will depend largely on the adequacy of the teacher's knowledge and understanding of his pupils.

C. Reporting Pupil Progress

Reporting to parents on the progress their children are making in school is clearly an important duty of the special class teacher. In order to give parents a picture of their children that is as complete and accurate as possible, it will be necessary for teachers to use a combination of oral and written methods of reporting. Some comments on reporting methods, and on grades and grading, are included in the following paragraphs.

1. Report Cards

The type of report card that is currently in use in most school systems today is generally considered to be inadequate by itself as a method of reporting pupil progress, not only in special education but also in the regular grades. In spite of this fact, however, the traditional report card continues to predominate in most regular classes. Because it is used in the regular grades, the standard report card generally should be used in classes for the mentally retarded in order to avoid singling out the special pupils as being different from other students in school. This is particularly important at the secondary level where students are very sensitive to any visible signs that differentiate them from the general school population.

Some elementary teachers have devised their own report cards with the approval of their administration. However, in such cases the special report is issued at the same time as in the regular grades, and it approximates the traditional card insofar as possible in terms of the general form, color, and so forth.

Whether special teachers use the traditional report card or an adapted version, it is essential that this system of reporting be supplemented with parent conferences and perhaps with some other reporting methods.

2. Grades and Grading

As in the case of report cards, the general grading system should be essentially the same in special classes as it is in the regular school program. However, where letter grades prevail, special teachers are often

concerned over the manner in which such grades should be used in the special class setting. Some of the questions raised by special teachers are:

Should special class pupils receive A's and B's if they are working up to their ability? If so, should teacher designate that an A in reading, for example, represents third grade work for a pupil who is 11 years of age?

Will some students and their parents question the need for special class placement if the pupils are getting all A's and B's?

Pupils are often aware that a grade earned in the special class doesn't have the same significance as in the regular grades, especially at the secondary level. Therefore, is it more appropriate and more meaningful to the students to give lower grades?

When it is clear that a pupil is working up to his capacity, should this be conveyed through some method of reporting other than the regular report card?

Unfortunately, there are no pat answers to these kinds of questions. Special teachers generally must determine what is the best approach in terms of their own philosophy with regard to grading and with what appears to fit in with the local school situation. In selecting a grading procedure, however, every effort should be made to insure that it is understood by parents, students, and the rest of the school staff. When pupils are enrolled in regular classes, they generally should be graded on the same basis and by the same criteria as the other students. There may be exceptions to this practice, but these should be worked out between the special and regular teachers and, where necessary, with local school principal.

3. Parent-Teacher Conferences

Parent conferences are generally considered to be one of the most effective methods of reporting to parents on the progress their child is making in school because they permit direct, two way communication. Such meetings may be scheduled for regular reporting periods and should encourage active participation by parents as well as by teachers.

That is, the conference period not only should include a report by the teacher on the child's progress in the school setting, but it should also provide an opportunity for the parents to raise questions and to work cooperatively with the teacher in making plans for the child's education and job training.

In meeting with parents of a retarded child, it is important for the special teacher to be aware of their possible emotional involvement. He must be sensitive to their feelings relative to the situation and by his attitude of acceptance and understanding, gain their confidence. On the other hand, he has a responsibility to be tactfully straightforward in helping parents to be realistic about potential expectancies for their children.

Generally, the setting for the conference should be informal and privacy should be assured. A reasonable time should be allowed for each conference and conscious effort made to adhere to the time. An attitude of friendly cooperation and genuine interest in the child will go a long way in establishing rapport with the parents. Progress should be discussed in terms of the pupil's past achievement and his own strengths and weaknesses. Comparisons are best made with the pupil's own record of achievement. Willingness on the part of the teacher to listen attentively will encourage parents to talk and will let them know that their help is needed.

In closing the conference it is well to summarize the points covered and to arrange for a follow-up meeting if this is deemed necessary. It is generally best to make notes for the cumulative folder immediately after the parents leave.

4. Home Visits

Although visiting the home of each pupil is generally more time consuming than regular parent conferences, many teachers feel that such visits are very worth while. Without some knowledge of the home, the child is seen in a narrow context and the teacher must rely on assumptions concerning the effects on the child of his home conditions. In planning the home visit, every effort should be made to encourage parents to arrange for some degree of privacy and freedom from interruption in order to make it possible for certain matters to be openly discussed. Teachers generally should endeavor to avoid becoming involved in a discussion of family problems, and whenever possible, should attempt to center the conversation on the progress of the child.

5. Other Methods of Reporting

As mentioned earlier, a combination of reporting methods is generally considered to be the most satisfactory system of reporting to parents. In addition to report cards and parent conferences, teachers may also wish to utilize an informal method of reporting.

The informal written note, for example, is meaningful to parents because it implies friendliness and genuine concern for the child. It may be a simple, handwritten note calling the parents' attention to a particular accomplishment their child has made, such as learning the addition facts or completing a special assignment.

It also may take the form of a newsletter in which various activities and learnings are enumerated and bits of school news are reported. The newsletter generally should involve participation by the students. Informal notes or newsletters may be sent at any time during the year but not necessarily at the general reporting period of the school system. It generally will prove worthwhile to file copies of all written notes on a particular child in his cumulative record folder. While a variety of methods should be employed in reporting to parents, in the final analysis the visible evidence in the child is perhaps the best reporting method of all.

D. Graduation

Graduation is a matter of great importance for the mentally retarded child as it is for all students in school. It also is an area which has traditionally been of great concern to educators. In recent years, however, the practice of including special class pupils in regular graduation exercises has become an accepted policy in a surprisingly large number of school systems.

In Minnesota, for example, most school districts that maintain a secondary school program for the mentally retarded do permit the pupils to participate in the regular commencement exercises. This practice also seems to predominate throughout the country. In a recent survey of special education sections, state departments of education, 25 of the 32 states reporting indicated that the most common procedure relating to graduation exercises for the mentally retarded is "Participation in regular graduation ceremony with other students."

1. Standard vs. Differentiated Diplomas

While the practice of graduating retarded pupils along with other students in school is rapidly becoming an accepted policy, there unfortunately is little uniformity of practice among school systems in terms of the type of diploma or certificate that is granted to special class pupils.

This lack of similarity goes beyond the matter of retarded students. That is, some school districts generally subscribe to the practice of issuing only one type of diploma regardless of the academic program that the students follow; for example, college preparatory or vocational. Conversely, other school systems issue different diplomas or certificates for each general course of study.

Those who adhere to the concept of the standard diploma support their practice with the following kinds of statements:

- a. The diploma is a form of recognition which denotes only that a student has successfully completed a prescribed program.
- b. The proper place to record differences among students is on the transcript or cumulative record, not on the diploma.
- c. Employers have a responsibility to check with the pupil's counselor or principal if they are concerned about the student's academic abilities or his general behavior and conduct.

Although most states have specific requirements relating to graduation, the proponents of the single diploma argue that special class students do, in fact, meet these requirements. That is, the students do complete courses in English, mathematics, and social studies, but the courses are geared to the needs and abilities of the individual students, just as they are programmed for pupils in the vocational program, the college preparatory program, and the slow-learning track. Retarded students, therefore, are entitled to the standard diploma granted to other secondary pupils.

Those who support the use of differentiated or multiple diplomas and certificates justify this practice with the following kinds of statements:

- a. Students should receive recognition commensurate with their academic abilities and according to the particular course of study they have followed. To use any other approach is to dilute the value and significance of the diploma.
 - b. It is difficult to place retarded pupils on an equal footing with college preparatory students and it is unfair to such students to receive the same type of recognition as other pupils who not only do not have the same abilities but who also have not followed the same course of study.
2. Department of Education Recommendations on Graduation

In keeping with the current philosophies, practices, and problems relating to graduation of the retarded child and to the granting of diplomas or certificates, the Department of Education recently included the following note in its administrative manual:

Mentally retarded pupils who have completed an approved senior secondary school program in special education should be permitted to participate in the regular secondary school graduation exercises and be granted an appropriate certificate by the local school board. The certificate should approximate, insofar as possible, the general form of the regular diploma or secondary school certificate.⁴

Administrative Manual for Minnesota Public Schools, Code X-A-1, (Revised, 1966), Edu. 43 (b) Recommendation 2.

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APPENDIX

Resource Materials

The following list contains those selected materials referred to in the text. A teacher will find these materials useful in the classroom. This list is intended to be only a sampling of available material.

Arithmetic

Arithmetic Comes to Life Series, Educational Publishing Corporation, Darien, Connecticut.
Everyday Business, Gary Lawson, Elk Grove, California.
The Happy Way to Numbers, John C. Winston Company, Philadelphia, Pennsylvania.
Money Makes Sense, Fearon Publishers, San Francisco, California
Special Education Catalogue, Continental Press, Elizabethtown, Pennsylvania.
Using Dollars and Sense, Fearon Publishers, San Francisco, California.

Reading

The Bucky Button Books, Benefic Press, Chicago, Illinois.
The Coyboy Sam Series, Benefic Press., Chicago, Illinois.
Deep Sea Adventures, Harr-Wagner Publishing Company, San Francisco, California.
The Frontier Series, Benefic Press, Chicago, Illinois.
A Functional Basic Word List for Special Pupils, Stanwix House, Inc., Pittsburgh, Pennsylvania.
Jim Forest Readers, Harr-Wagner Publishing Company, San Francisco, California.
Learning to Think Series, Science Research Associates, Chicago, Illinois.
Listening Aids Through the Grades, Bureau of Publications, Columbia University, New York, New York.
Morgan Bay Mysteries, Harr-Wagner Publishing Company, San Francisco, California.
Reading Aids Through the Grades, Bureau of Publications, Columbia University, New York, New York.
A Reading Readiness Program for the Mentally Retarded, R. W. Parkinson & Associates, Urbana, Illinois.
Reading Skill Builders, Readers Digest, Educational Department, Pleasantville, New York.
Remedial Reading Drills, George Wahr Company, Ann Arbor, Michigan.
Simplified Classics, Scott, Foresman & Company, Chicago, Illinois.
Teen-age Tales, D. C. Heath Company, New York, New York.
The Weekly Reader, Education Center, Columbus, Ohio.
Language Development
Talking Time, Webster Publishing Company, St. Louis, Missouri.
Animal Adventures, T. S. Denison Co., Minneapolis, Minnesota
Adventures Around Town, T. S. Denison Co., Minneapolis, Minnesota.

Science

The Golden Books, Simon & Schuster, Inc., New York, New York.
The True Books, Children's Press, Chicago, Illinois.

Tests

Gates Advanced Primary Reading Test, Bureau of Publications, Columbia University, New York, New York.
Arithmetic Test Series, includes readiness, survey, screening, and diagnostic tests, California Test Bureau, Los Angeles, California.
Silent Reading Diagnostic Test, Lyons & Carnahan, Chicago, Illinois.
Standardized Oral Reading Test, Public School Publishing Company, Bloomington, Illinois.
Stanford Arithmetic Tests, Harcourt, Brace & World, Inc., New York, New York.

Other Areas

A Functional Core Vocabulary for Slow Learners, Robert Burger, Reneselaer, New York.
I Learn to Write, E. C. Seale & Company, Indianapolis, Indiana.
Our Singing World, Ginn, Chicago, Illinois.